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ABSTRACT

This report, based on information gained from multiple surveys of physicians conducted since 1980, addresses a number of basic public policy questions regarding physician manpower supply and distribution in the state of New York. The report's primary focus is longitudinal, attempting to identify patterns and trends among New York State's physicians; it also presents estimates of the number of active physicians as of September 30, 1990. Also provided are comparisons of age and geographic locations of respondents and nonrespondents, as well as statistical analyses concerning physician characteristics, where they received their medical education, and the numbers entering the various types of practice specialties. Among the findings obtained from the statistics are the following: (1) the number of practicing New York State physicians who graduated from foreign medical schools equals the number who were trained in New York medical schools; (2) since 1965, the number of physicians practicing in New York State has increase substantially; (3) it is estimated that there are 300 physicians per 100,000 New York residents; and (4) the largest practice specialty of New York State physicians is general internal medicine. Twenty-six figures, 5 maps, and 13 tables illustrate the data. Appendices include the survey instrument, and tables providing additional comparisons by race, gender, and location. (GLR)

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PHYSICIAN SUPPLY AND CHARACTERISTICS IN NEW YORK STATE 1980 - 1990

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The University of the State of New York
The State Education Department
Bureau of Postsecondary Research and Information Systems
Albany, New York

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Physician Supply and Characteristics

in New York State:

1980 - 1990

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Bureau of Postsecondary Research and Information Systems
Albany, New York 12230
December 1991

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Introduction

The New York State Education Department is responsible for the licensure and registration of 32 professions. More than one half million professionals are currently registered by the Department. Except for the medical profession, all professions are required to renew their registration to practice every three years. The registration periods for these 31 professions are staggered so they do not all come due at the same time. In 1990 the medical profession registration period was changed to a two-year basis.

The Office of Postsecondary Education Policy Analysis within the Office of Higher and Continuing Education periodically conducts surveys of the various licensed professions. These surveys, conducted in conjunction with the Department's periodic registration of the professions, are intended to provide information useful to professional associations and their membership, legislators, governmental agencies and the general public. The surveys typically collect information on the personal, educational, and professional practice characteristics of the professions.

This report is one of two reports derived from the information collected in the 1988 physician survey. The first report (Report of the 1988 Survey of Physicians) presented detailed tabular information and was designed to address the specific concerns of local, regional, and statewide health planners who are interested in the characteristics of physicians within the various counties and regions of the State. This second report attempts to address a number of basic public policy questions regarding physician manpower supply and distribution and in doing so uses information from multiple surveys of physicians conducted since 1980. The primary focus of this report is longitudinal, attempting to identify patterns and trends among New York State's physicians.

To address the need for information on physician supply which is as current and complete as possible, this report presents estimates of the number of active New York State physicians as of September 30, 1990. Statewide estimates were derived by simply multiplying the number of registered physicians as of a fixed date (9/30/90) times the percentage information on physician characteristics derived from the 1988 survey (e.g., 78 percent of all survey respondents indicated their practice to be within New York State). Age and geographic locations of respondents and nonrespondents were compared using the Department's registration file and no significant differences were found between these two groups. Similar estimation procedures were used for other estimates and are described in the body of the report. Figure 1 shows the number of physicians who reregistered as of April 1989 and the number of physicians who responded to the survey as of that date (91 percent). The figure also shows the number of registrants as of September 30, 1990 (70,080). This is the base number for all of the estimation numbers shown in the report.

Figure 1

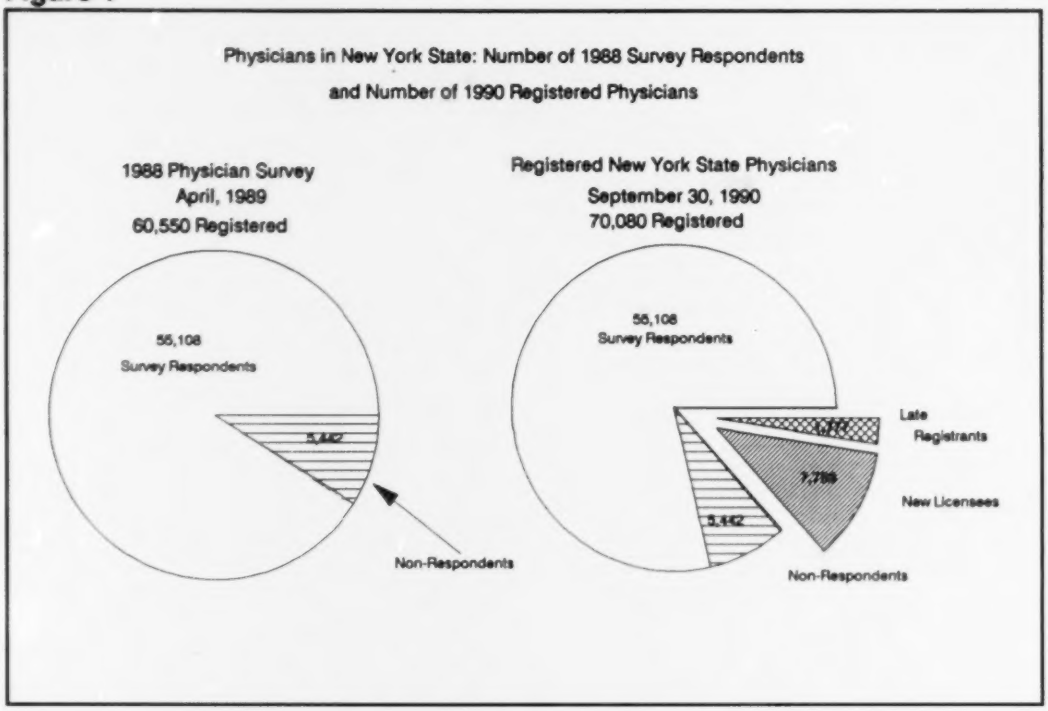
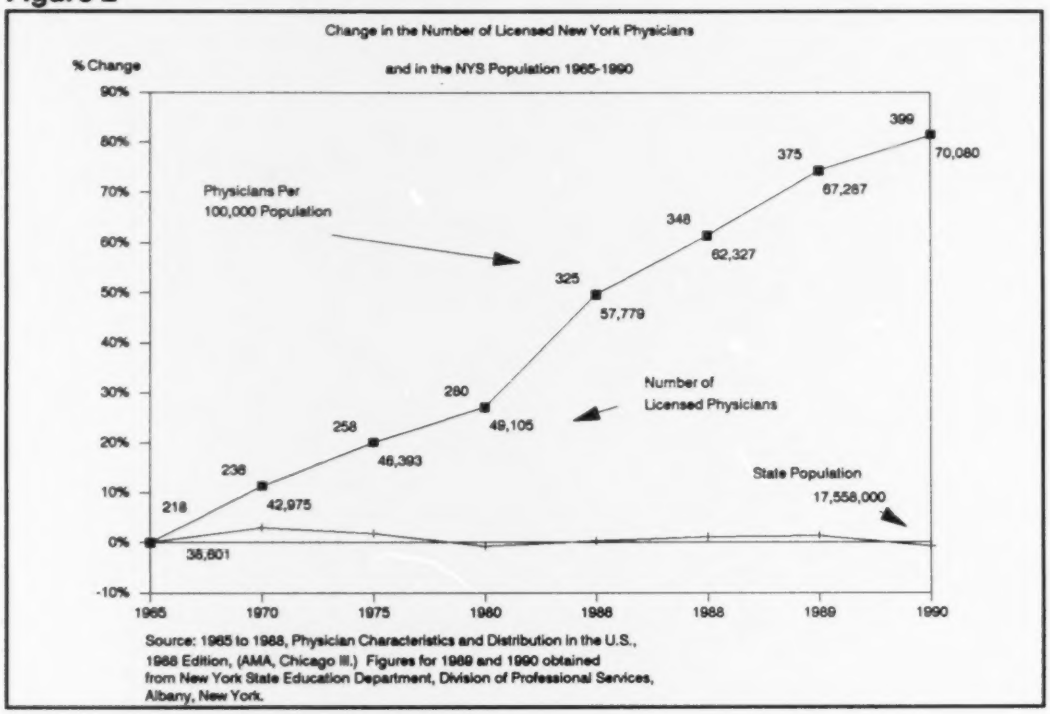


Figure 2



PART I

PHYSICIAN SUPPLY

Total Physician Supply In terms of the total number of non-Federal physicians, New York State was second only to California in 1988 according to the American Medical Association, (Physician Characteristics and Distribution in the U.S., 1988). Even when the State's population is taken into account, New York State still ranks in the top four states within the nation in terms of the number of physicians per 100,000 population. In 1988 the national average of physicians per 100,000 population was 229. In 1988 New York State had 348 physicians per 100,000 population or 52 percent above the national average. Only Maryland, Massachusetts, and the District of Columbia had more physicians per 100,000 population than New York State (Map 1).

Since 1965 the total number of physicians in both New York State and the nation has increased substantially. Between 1965 and 1988 the total number of licensed physicians in New York State increased by 62 percent (38,601 to 62,327) while the State's total population increased by only 1 percent (Figure 2). The rest of the country experienced even greater growth in its supply of physicians with the total number of licensed physicians growing by 112 percent between 1965 and 1988 (266,045 in 1963 to 563,851 in 1988). However, because the population within the nation as a whole grew much more rapidly than did New York State's population, growth in the number of physicians per 100,000 population in the country was similar to the growth New York State experienced. The number of physicians per 100,000 population within New York State increased by 60 percent, from 218 to 348 and by 62 percent (139 to 225) in the country as a whole between 1965 and 1988.[1]

The number of licensed physicians within New York State continues to grow. Between January 1989 and September 1990, New York State licensed approximately 7,800 new physicians. By September of 1990 then, there were 70,080 physicians licensed to practice in New York State or 399 physicians per 100,000 population.[2]

1 Physician Characteristics and Distribution in the U.S., 1987 Edition and personal phone call for 1988 information, (American Medical Association , Chicago, Illinois, n.d.) It should be noted that counts of physicians in New York State Education Department's registration files differ from AMA counts for New York State. Generally, NYSED registration counts are somewhat higher. Counts of physicians for 1989 and 1990 are taken from the NYSED registration file.

2 Source: New York State Education Department, Division of Professional Licensing Services' monthly reports, September, 1990

Physicians to Population Ratios 1988

National Average, 1988 – 229 Physicians per 100,000 Population

SOURCE: U.S.Bureau of the Census "Current Population Reports", Series P-25, No. 1024, May,1988

Table 1

Percent of Physicians Providing Direct Patient Care by Principal Type of Practice Setting	
Practice Setting	**Total Physicians Providing Direct Care %**
Solo Practice	98%
Group Practice	95%
Hospital Staff	90%
Intern, Resident or Fellow	94%
HMO	98%
Nursing Home	91%
Administration	60%
Medical School Faculty	90%
Research	64%
Other	82%
Total	93%
Source: 1988 Physician Survey	

Active Physician Supply The total number of licensed physicians within a state is a somewhat misleading number since it actually overstates the number of physicians who are actively engaged in the practice of medicine within that state. Some of the licensed physicians who renew their registration with New York State are actually retired or inactive or are conducting their practice in another state. Eighty-three percent of all registered respondents indicated that their principal work location or address was inside New York State and of those physicians, 97 percent indicated that they were "active" in medicine with 89 percent indicating their work status was full-time and 9 percent reporting a part-time work status. If we apply the in-state, active practice rate (81 percent) derived from the 55,108 physicians who responded to the survey to the total number of physicians registered to practice with the New York State Education Department in September of 1990 (70,080), then the total number of physicians practicing within New York State in September of 1990 was 56,690 or 323 per 100,000 population.

Patient Care Physicians Not all physicians who indicate that they are "active" are necessarily providing patient care. Some physicians are full-time administrators, researchers or faculty members and may or may not also be engaged in providing patient care in addition to their other activities. Among the questions asked in the survey was

the physician's principal work setting and whether or not they were providing patient care. Table 1 shows this information by practice setting and reveals that 93 percent of all physicians indicated that they were active in the provision of patient care. The table also reveals that irrespective of practice setting, most physicians reported that they were engaged in providing patient care. Those in administration and research were least likely to indicate that they were providing care, but even with these physicians, about 60 percent reported they were, at least to some extent, engaged in the provision of patient care. If we apply the 93 percent overall average to the estimated total number of physicians practicing within New York State, the total number of physicians actively engaged in the provision of patient care would be 52,722 or 300 physicians per 100,000 population (Figure 3).

Practice Location Questions about the adequacy of the total supply of physicians in New York State and the supply of primary care physicians are not the only issues of interest in discussions of physician supply. Equally important is the issue of their geographic distribution across the State. The State could have an overall adequate supply of physicians while areas within the State lacked an adequate supply to meet their needs. The major problem in this regard has been the tendency of physicians to locate in urban rather than rural and inner city areas.

Figure 3

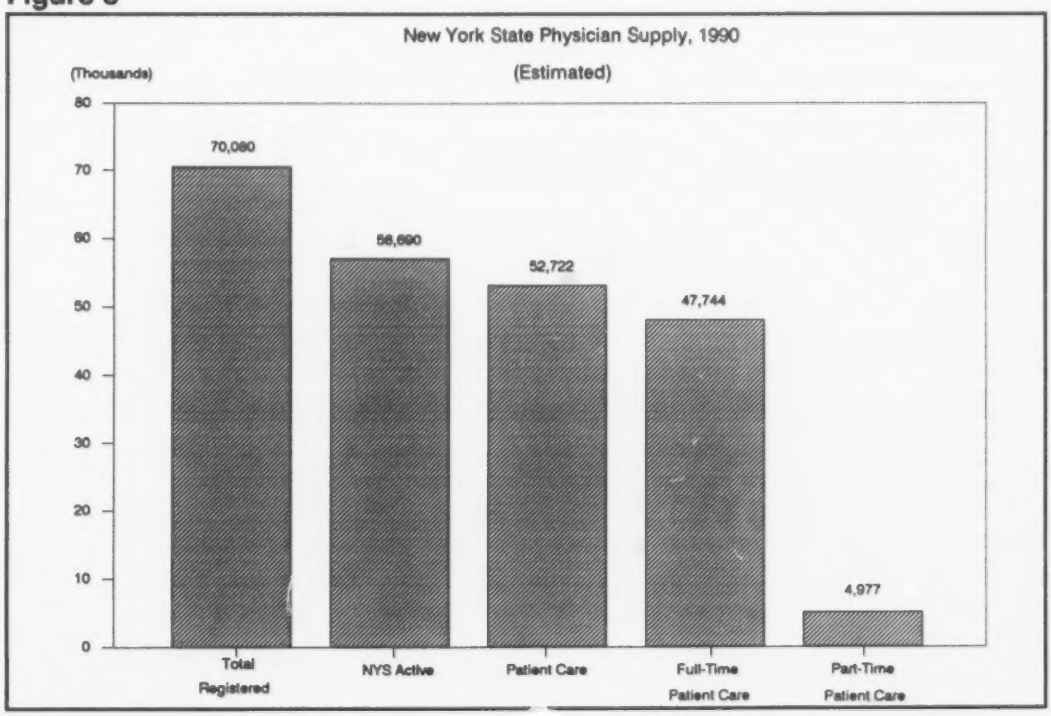


Table 2

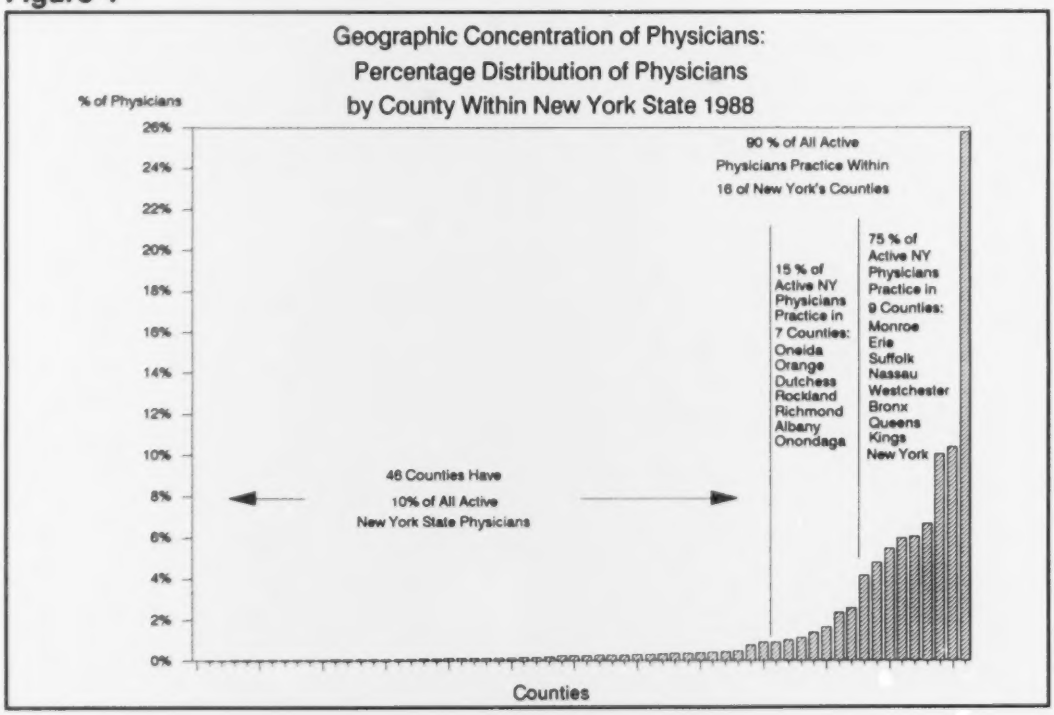
Number of Physicians and Physicians Per 100,000 Population by County
September 1990

COUNTY	Est. Active Physicians	Estimated Active Physicians per 100,000 Population	COUNTY	Est. Active Physicians	Estimated Active Physicians per 100,000 Population
ALBANY	1,330	469	QUEENS	5,677	296
ALLEGANY	38	76	RICHMOND	931	246
BROOME	503	240	NIAGARA	282	130
CATTARAUGUS	129	152	ONEIDA	510	207
CAYUGA	101	126	ONONDAGA	1,446	314
CHAUTAUQUA	206	145	ONTARIO	188	202
CHEMUNG	222	246	ORANGE	582	202
CHENANGO	61	120	ORLEANS	35	90
CLINTON	136	167	OSWEGO	104	86
COLUMBIA	87	143	OTSEGO	207	348
CORTLAND	58	121	PUTNAM	144	175
DELAWARE	54	116	RENSSELAER	241	159
DUTCHESS	643	249	ROCKLAND	786	296
ERIE	2,706	282	ST LAWRENCE	159	142
ESSEX	44	120	SARATOGA	164	98
FRANKLIN	88	204	SCHENECTADY	426	284
FULTON	72	134	SCHOHARIE	30	101
GENESEE	82	140	SCHUYLER	27	153
GREENE	30	72	SENECA	33	102
HAMILTON	1	26	STEUBEN	141	146
HERKIMER	57	85	SUFFOLK	3,076	234
JEFFERSON	160	169	SULLIVAN	88	126
LEWIS	20	79	TIOGA	35	69
LIVINGSTON	51	86	TOMPKINS	176	200
MADISON	72	108	ULSTER	256	155
MONROE	2,354	337	WARREN	158	289
MONTGOMERY	86	166	WASHINGTON	51	87
NASSAU	3,377	257	WAYNE	92	105
NEW YORK	14,529	972	WESTCHESTER	3,447	399
BRONX	3,795	313	WYOMING	45	109
KINGS	5,885	255	YATES	18	85
NEW YORK STATE TOTAL				56,690	318

Table 2 shows the estimated number of active physicians by county as of September 1990. The estimates for each county were derived by simply using each county's percentage share of all of the New York State practicing physicians according to the survey and applying that percentage to the estimated total number of active New York State physicians in September 1990. The table also shows the number of physicians per 100,000 population within each county. Figure 4 takes the information from Table 2 and by sorting the counties by the number of physicians within the county (from least to most physicians) shows the geographic concentration of physicians within the State. Seventy-five percent of all active physicians are located in 9 counties and fully 90 percent are located within 16 of New York's 62 counties. With 14,500 physicians, New York County alone (Manhattan) has almost 26 percent of the State's total supply of physicians and two and one half times the number of physicians within the next largest county (in number of physicians). Conversely, the remaining 10 percent of the State's physicians are spread across the remaining 46 counties within the State.

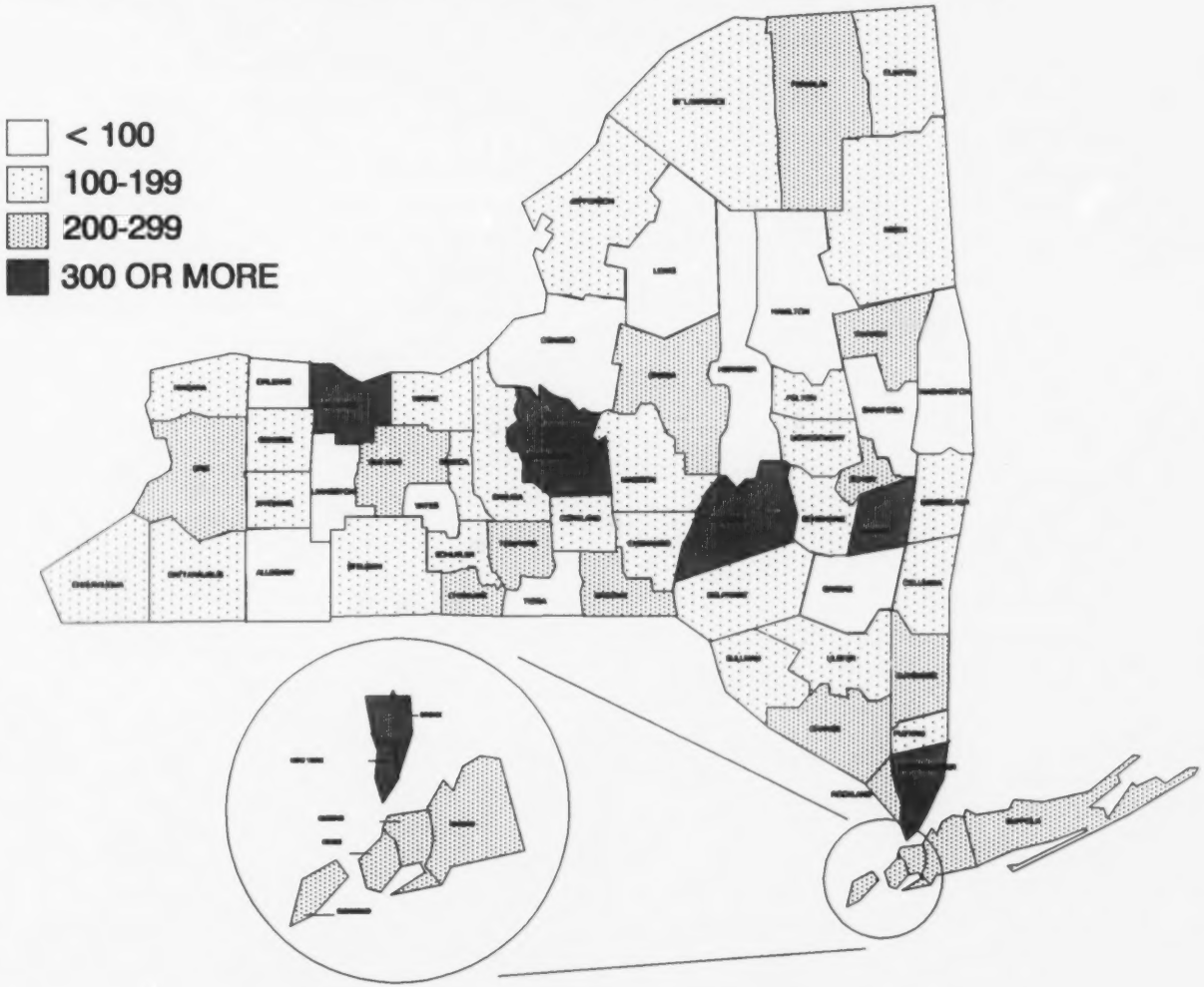
Even when standardized by county population size (the number of physicians per 100,000 population), physicians are not evenly distributed across the counties of the State as clearly shown in Map 2. Physicians generally tend to concentrate in urban areas where there are high population concentrations and where there are hospitals and other medical facilities. This analysis can be extended by ranking the counties of the State

Figure 4



Map 2

ALL NYS PHYSICIANS PER 100,000 POPULATION (9/90)



from most urban to most rural. The New York State Legislative Commission on Rural Resources devised a six-category scale for ranking New York's counties from most to least urban (Rural Health Resource Guide, Volume 1 August, 1987, p.6). Appendix B contains the list of counties placed in each scale category. Figure 5 shows the average number of physicians per 100,000 population within those six urban/rural county categories. The graph reveals that the most urban group of New York State counties has over three times the number of physicians per 100,000 population as the most rural group of counties. The most urban group of counties has 375 physicians per 100,000 population compared to 122 per 100,000 population in the most rural counties.

A comparison of the 1980 and 1988 physician surveys allows us to examine change in physician supply since both surveys requested practice location information. Figure 6 shows that although the most urban counties had the largest growth in the number of physicians during that period (38 percent), even the most rural group of counties experienced a growth in physician supply of 22 percent during that period. Figure 7 addresses the question of whether physicians locate where population growth is greatest. The graph shows that although counties with the largest population growth also had the largest growth in physician supply, even counties which experienced population declines experienced a growth in the number of physicians within those counties.

Figure 5

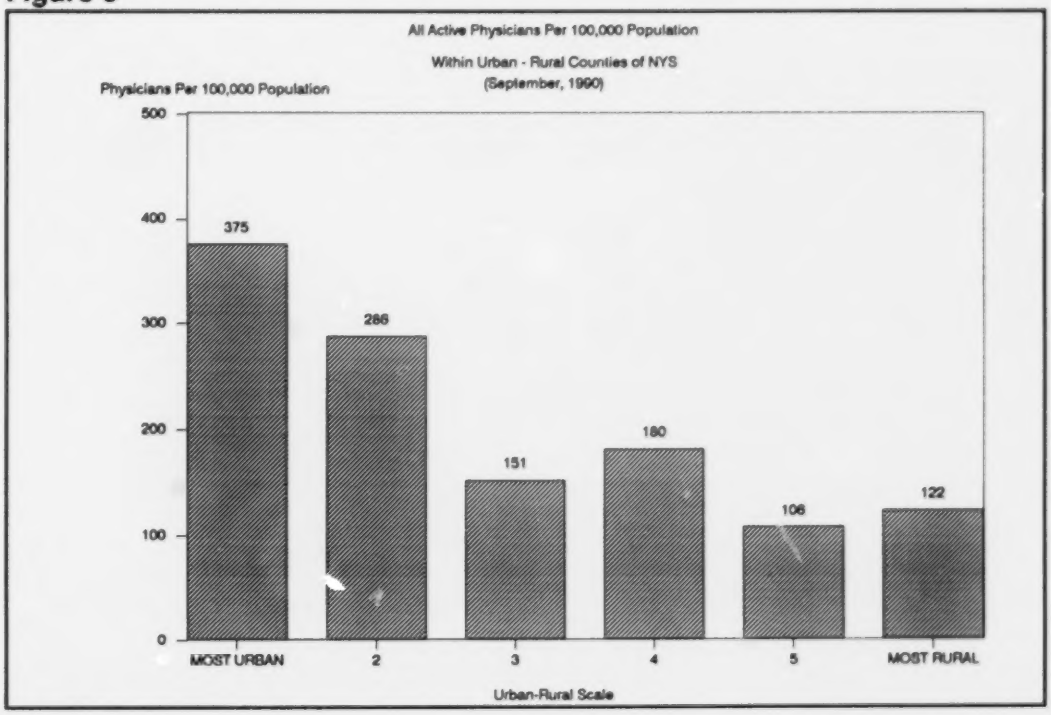


Figure 6

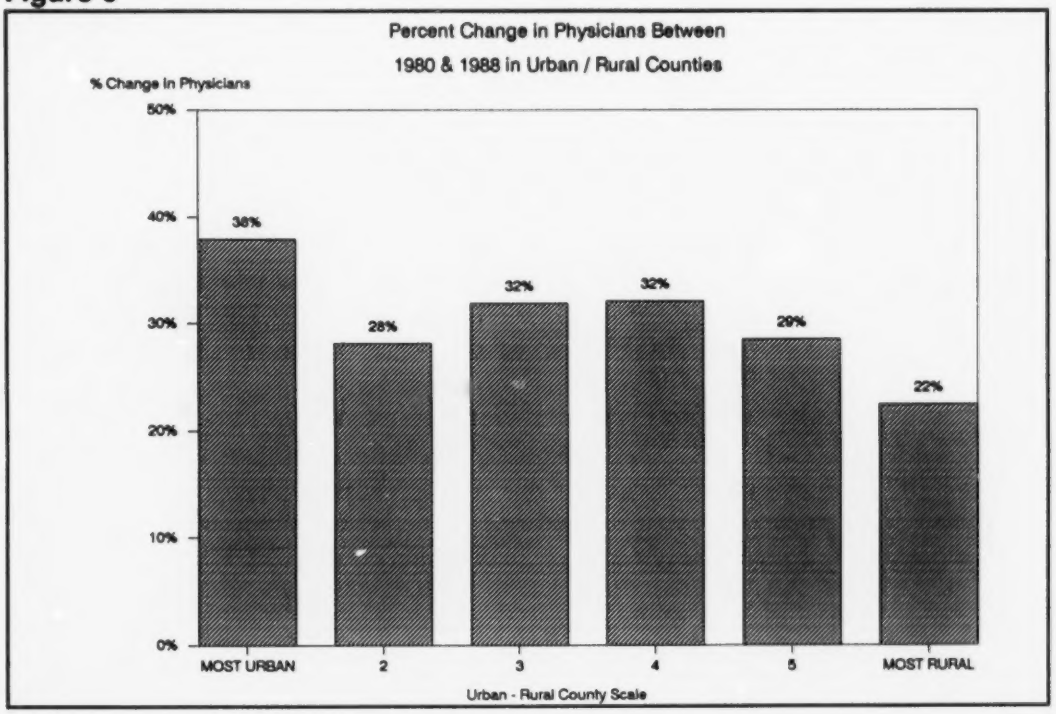
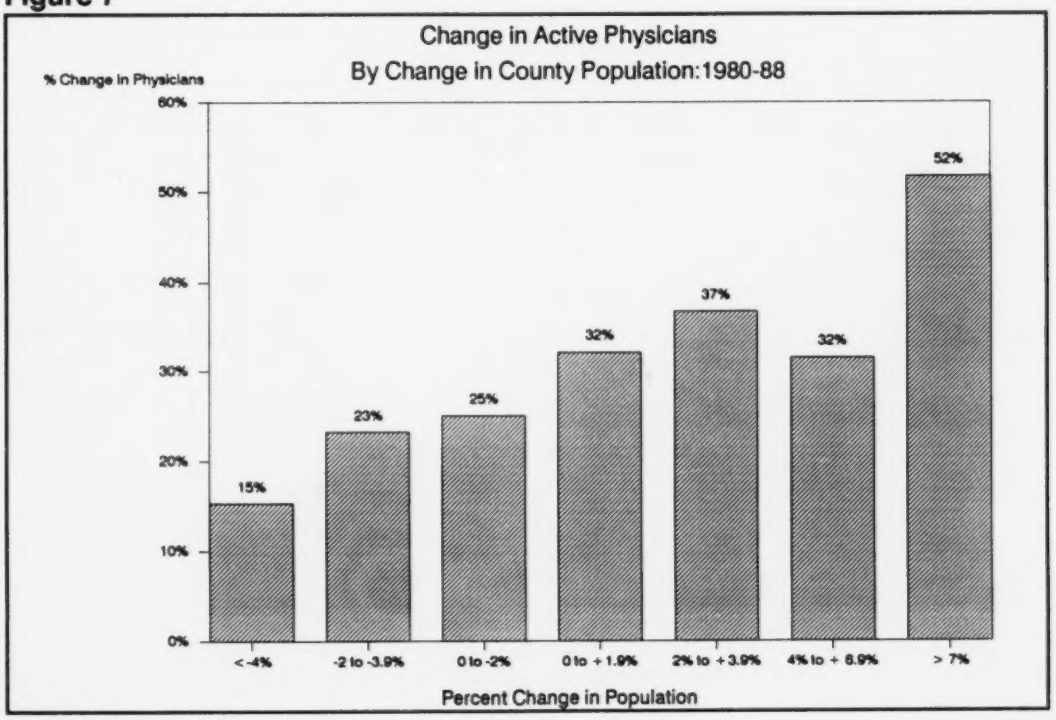


Figure 7



PART II

Physician Characteristics

Age During the past decade New York State's physician population has been getting younger. Between 1980 and 1988 the average age of physicians declined from 48 to 46 years of age. Additionally, the increase in the State's physicians supply is largely due to the substantial increase in the number of younger physicians practicing within the State. Between 1980 and 1988 the number of physicians under age 40 increased by 41 percent while the number of physicians over 40 increased by only 19 percent. As Figure 8 shows, physicians under age 40 now represent the largest group of physicians within the State; 38 percent. The average age of physicians within New York State is 46 with only 18 percent of the State's practicing physicians over 60 years of age. There is little variation in the average age across the counties of the State as Table 3 shows.

Sex The number of female physicians increased dramatically between 1980 and 1988. Again, while the total number of physicians in practice in New York State

Figure 8

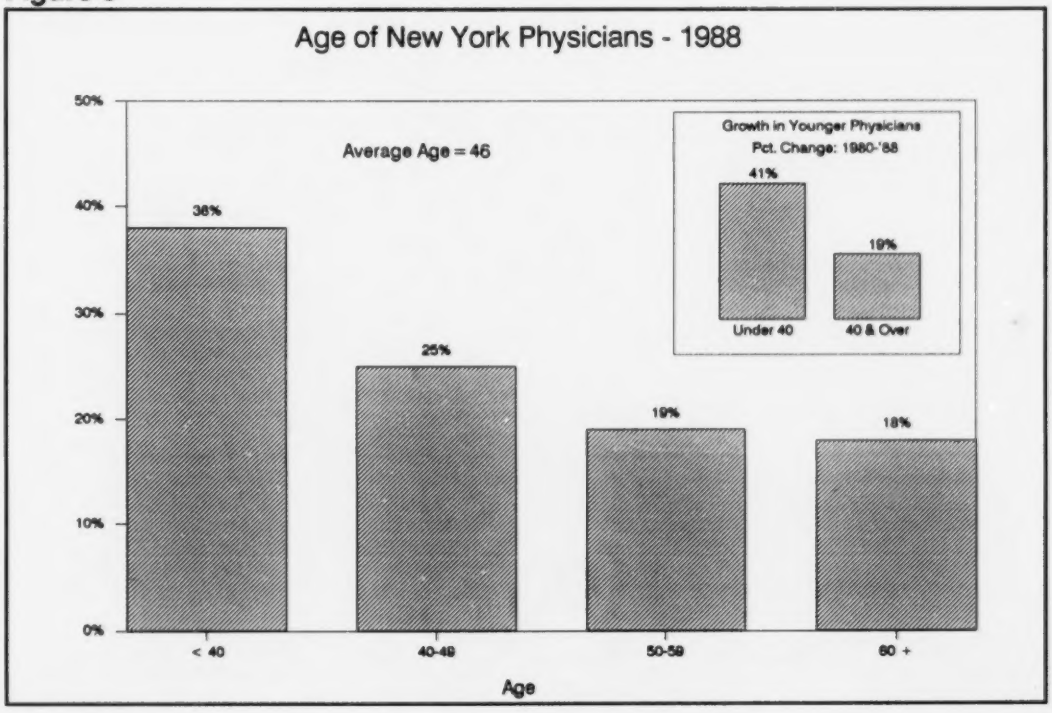


Table 3

MEAN AGE OF PHYSICIANS BY COUNTY			
COUNTY	AGE	COUNTY	AGE
ALBANY	46	NIAGARA	48
ALLEGANY	44	ONEIDA	49
BRONX	44	ONONDAGA	46
BROOME	48	ONTARIO	49
CATTARAUGUS	47	ORANGE	48
CAYUGA	49	ORLEANS	45
CHAUTAUQUA	50	OSWEGO	48
CHEMUNG	47	OTSEGO	43
CHENANGO	49	PUTNAM	47
CLINTON	49	QUEENS	47
COLUMBIA	51	RENSSELAER	47
CORTLAND	49	RICHMOND	45
DELAWARE	50	ROCKLAND	49
DUTCHESS	49	SARATOGA	45
ERIE	47	SCHENECTADY	48
ESSEX	48	SCHOHARIE	51
FRANKLIN	47	SCHUYLER	45
FULTON	51	SENECA	52
GENESEE	51	ST LAWRENCE	49
GREENE	45	STEUBEN	48
HAMILTON	32	SUFFOLK	47
HERKIMER	51	SULLIVAN	47
JEFFERSON	47	TIOGA	46
KINGS	47	TOMPKINS	50
LEWIS	48	ULSTER	49
LIVINGSTON	49	WARREN	47
MADISON	46	WASHINGTON	49
MONROE	45	WAYNE	49
MONTGOMERY	51	WESTCHESTER	49
NASSAU	48	WYOMING	48
NEW YORK	46	YATES	35
NEW YORK STATE MEAN AGE			46

increased by 26 percent between 1980 and 1988 the number of female physicians increased by 81 percent; from 4,956 in 1980 to 8,960 in 1988. Their share of the physician labor force has therefore, also increased, from 14 percent in 1980 to 20 percent in 1988. As one might expect, female physicians predominate among the younger physicians. In 1980, 19 percent of all physicians under age 40 were female; in 1988, that proportion rose to 27 percent. Fully one-half of all female physicians are under age 40, and with an average age of 42, they are approximately six years younger than their male counterparts.

Race Overall, physicians within New York State as in the rest of the nation, are overwhelmingly white and male. In 1988, 77 percent of all practicing physicians within New York State were white. Nevertheless, minorities have made gains during the past decade. Although still only representing 7 percent of all New York State physicians, the number of physicians from underrepresented minority groups (black, Hispanic and Native American) increased by 146 percent between 1980 and 1988; from 1,318 in 1980 to 3,236 in 1988. Asians represent the second largest racial/ethnic group in both surveys and have continued to increase in both numbers (4,225 in 1980 and 7,002 in 1988) and share of the total physician population (13 percent in 1980 and 16 percent in 1988). Finally, the number of white physicians increased in absolute numbers during this period (26,377 to 34,044) but declined as a percentage of the total physician population (82 percent in 1980 and 77 percent in 1988).

PART III

MEDICAL EDUCATION

Consistent with the relatively young age of practicing New York State physicians, fully 51 percent graduated from medical school after 1969 (Figure 9). Most of New York's physicians are U.S. citizens (72 percent), went to a U.S. medical school (63 percent), and were residents of New York State when they entered medical school (54 percent)(Figure 10). Of the physicians who were New York State residents at the time the entered medical school, 62 percent went to a New York State medical school.

The number of practicing New York State physicians who graduated from foreign medical schools equals the number who were trained in New York medical schools - 16,590 or 37 percent of the total. Of those attending foreign medical schools, nearly one-third went to school in Europe; significant numbers, however, were educated in South Asia (Burma, India, or Pakistan) or the Far East (China, Japan, Philippines, Korea, or Taiwan). (Table 4). Most foreign medical school graduates were foreign citizens at the time they entered medical school (70 percent). Nevertheless, fully 25

Figure 9

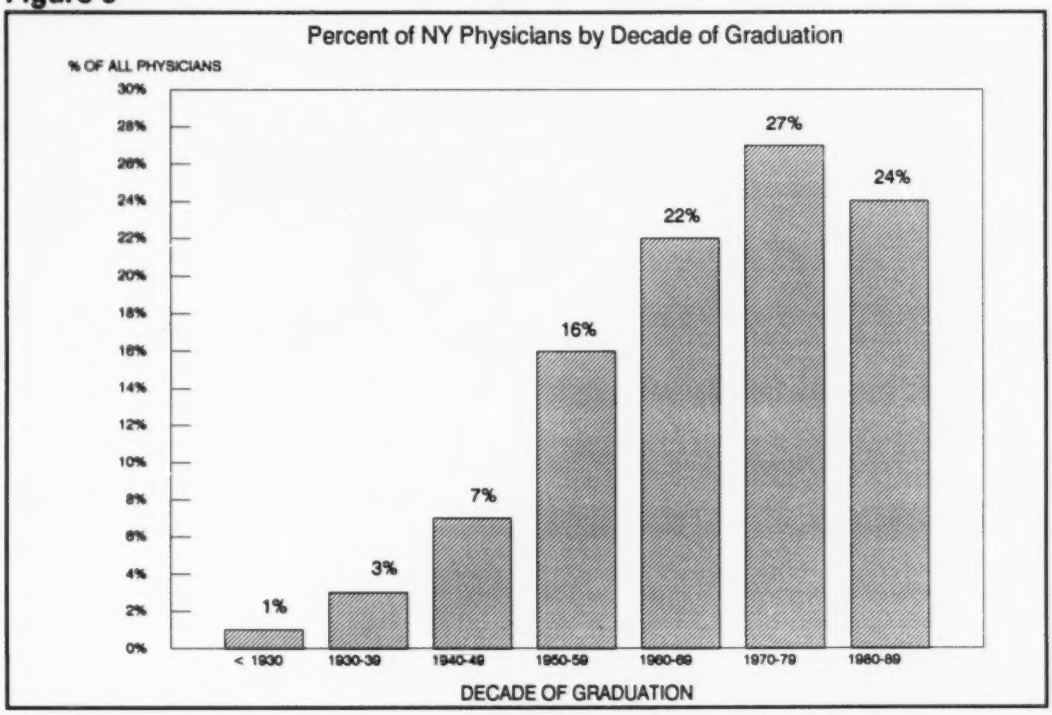
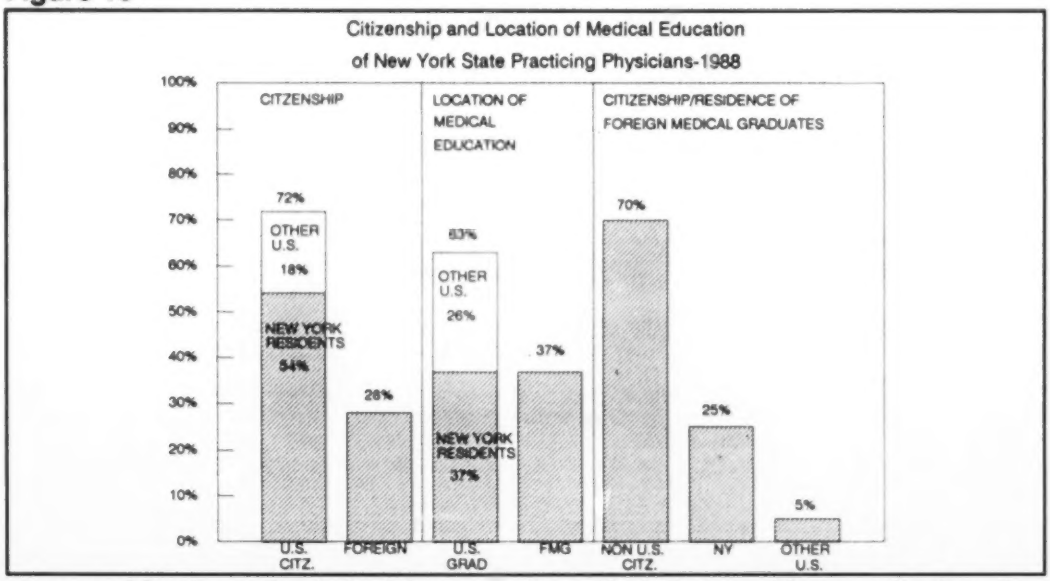


Figure 10



percent of foreign trained physicians were New York State residents at the time they entered medical school.

Although 72 percent of New York State's practicing physicians were U.S. citizens when they entered medical school, the percentage of **new licensees** who were foreign nationals at the time they were licensed has been far from static over time. Figure 11 shows that the percentage of foreign born physicians licensed in a particular year rose from about 5 percent in 1946 and into the early 1950s to almost 65 percent in the early 1970s. From that point it dropped off substantially to about 22 percent since 1985. The dramatic growth and subsequent decline in the number of foreign born physicians derived from changes in United States immigration laws; at first encouraging immigration of foreign physicians in the early 1960s and then reversing that policy in the early 1970s.

"[In 1965] Congress abolished the origin quotas for immigration and instituted a system of preference with priority assigned to professions in short supply, and physicians were assigned high priority." [3]

"This decrease may be attributed in large part to the variety of questions raised in the 1970s regarding the escalating number of alien physicians in the U.S. and the enactment of federal legislation in 1976 [P.L. 94-484] which placed limitations on the immigration of foreign nationals." [4]

Not only has the citizenship status of New York State physicians changed over time but so too has the location of their medical education. Figure 12 shows that the

3 (Regents Task Force Reports, New York State Education Department, Albany, New York,1975) p.23.

4 Physician Characteristics and Distribution, 1987 Edition, (American Medical Association, Department of Data Release Services, Division of Survey and Data Resources)p.11.

Table 4

ALL PHYSICIANS IN PRACTICE IN NEW YORK STATE BY LOCATION OF MEDICAL SCHOOL ATTENDED

NEW YORK STATE	**37%**
OTHER UNITED STATES	**26%**
PENNSYLVANIA	4%
MASSACHUSETTS	3%
ILLINOIS	3%
DISTRICT OF COLUMBIA	2%
NEW JERSEY	1%
ALL OTHER STATES	13%
OUTSIDE UNITED STATES	**37%**
EUROPE	11%
SOUTH ASIA	7%
FAR EAST	7%
MEXICO	3%
MIDDLE EAST	3%
CARIBBEAN	2%
SOUTH AMERICA	1%
CANADA	1%
SUB-SAHARAN AFRICA	*
SOUTHEAST ASIA	*
OCEANIA	*
CENTRAL AMERICA	*
TOTAL NYS DOCTORS	**100%**

* Less than 1 percent.

percentage of new licensees who received their medical education in New York State declined from about 55 percent in 1955 to about 20 percent in 1972. During that period the number of foreign trained physicians increased from about 10 percent to about 60 percent. Since the early 1970s the percentage of new licensees trained in both New York and other U.S. medical schools increased while the percentage of foreign trained physicians declined to the point where both New York and other U.S. trained new licensees outnumbered foreign trained physicians.

Although three regions of the world have produced almost 70 percent of New York's foreign trained physicians, figure 13 shows that those proportions have been changing substantially over the years. Until 1960 about 70 percent of foreign trained New York physicians were trained in Europe, but by 1970 that percentage had dropped to only around 10 to 15 percent. Those trained in the Far East peaked at about 45 percent in 1971 while those trained in South Asia peaked at about 40 percent in the late 1970s and still remain over 30 percent of new licensees.

Substantial variation exits in the geographic concentration of foreign medical school graduates across the counties of the State. Hamilton and Yates counties have no foreign medical school graduates while 63 percent of Seneca County's physicians are foreign medical school graduates. Map 3 shows the location of foreign medical school graduates

Figure 11

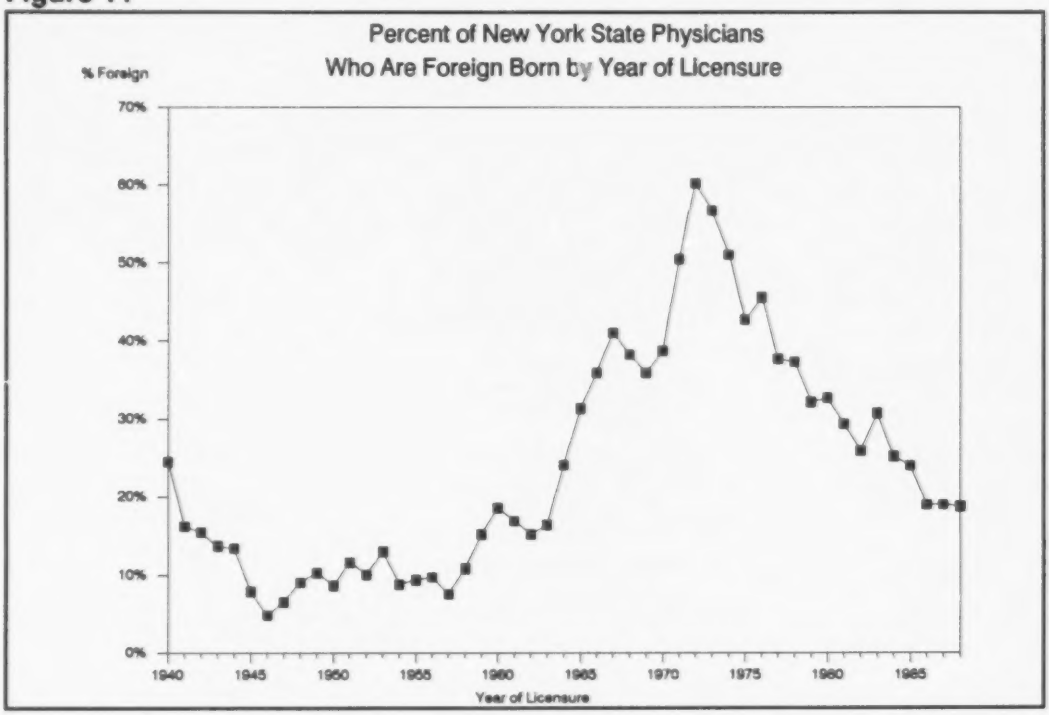


Figure 12

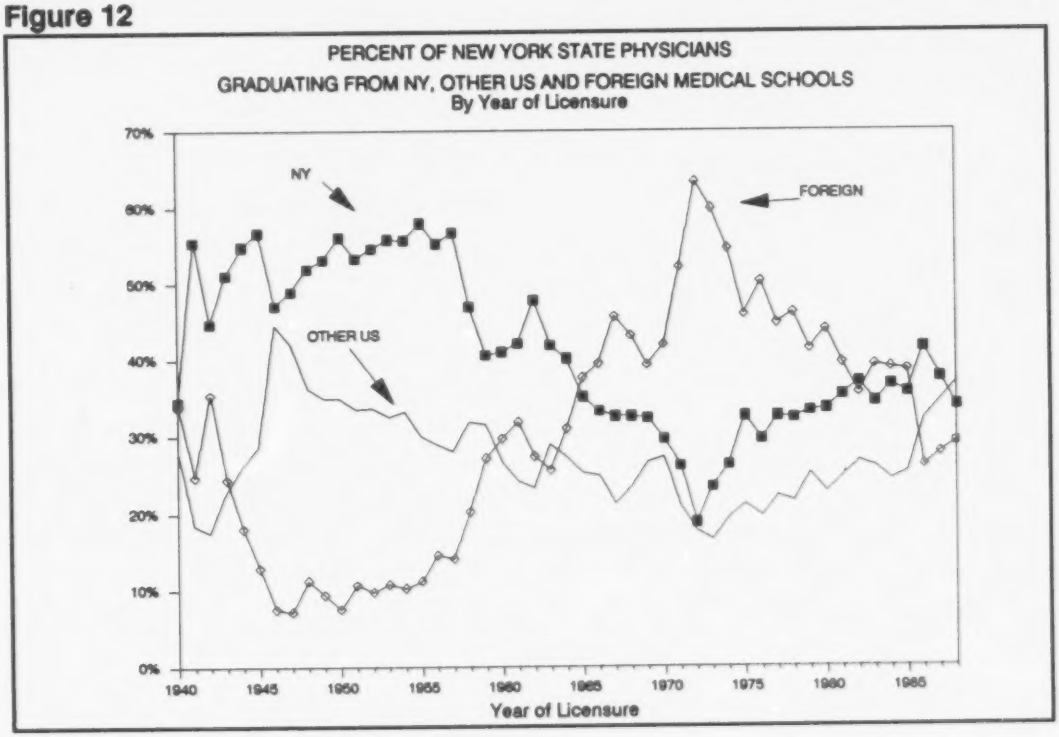
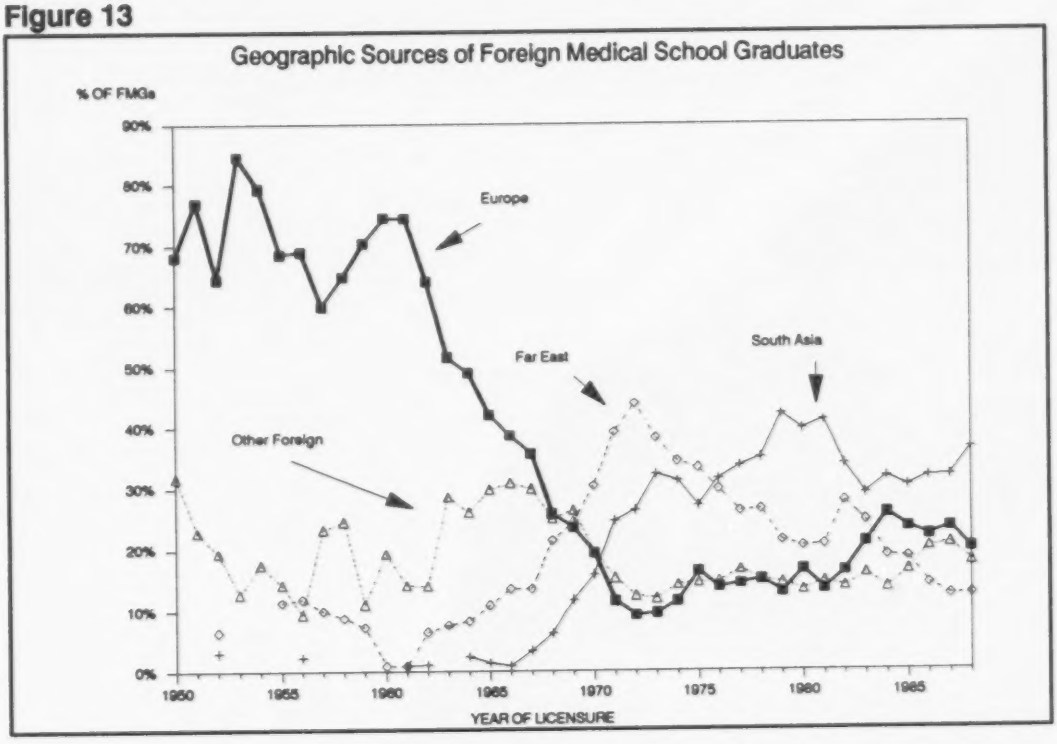


Figure 13



within the counties of the State. The map indicates that although these physicians are fairly widely distributed across the counties of the State, counties within the southeastern part of the State tend to have a high concentration of these physicians as does the New York City area with the exception of New York County (Manhattan).

Less than half of the physicians who graduate from New York State medical schools remain in New York State. Since 1981, the State's medical schools have granted an average of 1,745 medical degrees each year. Of those New York medical school graduates who have had an opportunity to obtain a New York State physicians license and enter practice in this State (the classes of 1981-86), an average of only 711 per class (41 percent) have done so (Table 5).

National data collected by the American Medical Association indicate the fact that less than half of the state's medical school graduates remain in practice in New York State may not be a recent phenomenon. In fact, a greater proportion of recent graduates have remained in the State than have graduates from earlier years. Figure 14 shows the percentage of each decade's graduates who practice in New York State. For each decade of graduating classes depicted, the percentage of graduates from New York State medical schools who are *currently* practicing within New York State varies from 17 percent for those graduating before 1940 to 43 percent for those graduating after 1979. Whether this means that recent graduates are more likely to set up practice in New York State than graduates in previous decades or simply that physicians are increasingly likely to leave the state as they get older is not clear. Given the costs associated with relocating a medical practice, the former interpretation seems more plausible.

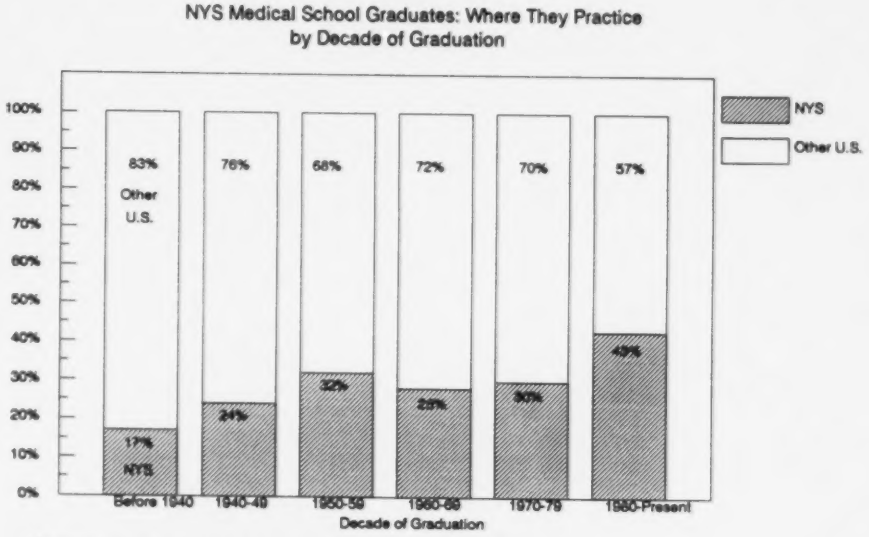
Figure 15 shows this same comparison for each of the 12 medical schools in New York. Graduates of certain schools (e.g., Mt. Sinai and SUNY Stony Brook) have remained in the State in significant numbers. Other schools (e.g., Columbia and Cornell) have proven to be significant exporters of graduates. *None* of the State's medical schools, however, has a majority of its graduates currently practicing within New York State.

It is commonly held that physicians practice in the state where they complete a residency program, and 81 percent of survey respondents reported completing their most recent residency or fellowship in New York State (Table 6). There is also little difference between U.S. and foreign medical school graduates in where they receive their residency training; fully 83 percent of foreign medical school graduates did their residency training in New York State.

Map 3

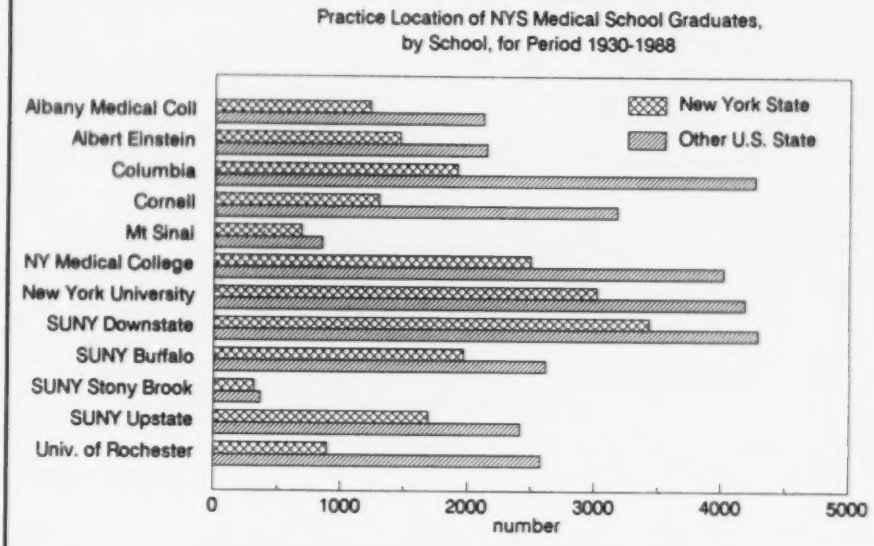
Percentage of Physicians who are Foreign Medical School Graduates by County

Figure 14



Sources: Physician Characteristics and Distribution in the U.S., 1987 Edition,
(American Medical Association, Chicago, Illinois, 1987.)
New York State Education Department, Bureau of Postsecondary Research and
Information Systems, Albany, New York, June, 1990.

Figure 15



Sources: Physicians Characteristics and Distribution in the U.S., 1987 Edition
(American Medical Association, Chicago Illinois,1987.)
New York State Education Department, Bureau of Postsecondary Research and information Systems, Albany, NY June,1990
1988 Physician Survey

Table 5

GRADUATES OF NEW YORK STATE MEDICAL SCHOOLS WHO CURRENTLY PRACTICE IN NEW YORK STATE AS A PROPORTION OF ALL NEW YORK STATE MEDICAL DEGREES ISSUED, EACH YEAR 1981 TO 1989

	NYS MEDICAL DEGREES CONFERRED[1]	NEW YORK STATE PRACTICING PHYSICIANS WHO GRADUATED FROM A NY MEDICAL SCHOOL BY GRADUATION YEAR[2]	
1981	1,720	634	37%
1982	1,760	642	37%
1983	1,730	663	38%
1984	1,789	774	43%
1985	1,737	801	46%
1986	1,766	753	43%
1987	1,724	306	N/A*
1988	1,757	N/A*	N/A*
1989	1,726	N/A*	N/A*
TOTAL	**15,709**	**4,573**	**29%**
AVERAGE	**1,745**	****711**	**41%**

[1] SOURCE: Annual SED Higher Education Survey of Degree Granting Postsecondary Institutions.
[2] SOURCE: 1988/89 SED Survey of New York State Licensed Physicians.
* Not Applicable since most graduates during these years had insufficient time to become licensed.
** 1981-1986

Table 6

RESIDENCY PROGRAM LOCATION OF NEW YORK STATE PHYSICIANS

NEW YORK STATE	81%
OTHER STATE	18%
OTHER	1%
TOTAL	100%

PART IV

Practice Specialty

Introduction A variety of issues related to physician practice specialty are dealt with in this section of the report. One such issue concerns the number and geographic distribution of primary care physicians. It is often maintained that U.S. medical schools produce too many specialists and not enough primary care physicians and that this tends to drive up the cost of American medical care. Another issue concerns change in practice specialty over time. During the 1970s and 1980s sharply rising medical malpractice insurance gave rise to frequent physician contentions that those costs were causing them to leave the State, change their practice specialty or change the way in which they practiced medicine. A final major issue related to medical specialty concerns continuing medical competence. This is a large and complex issue and will only be touched upon in this report from the perspective of board certification/recertification.

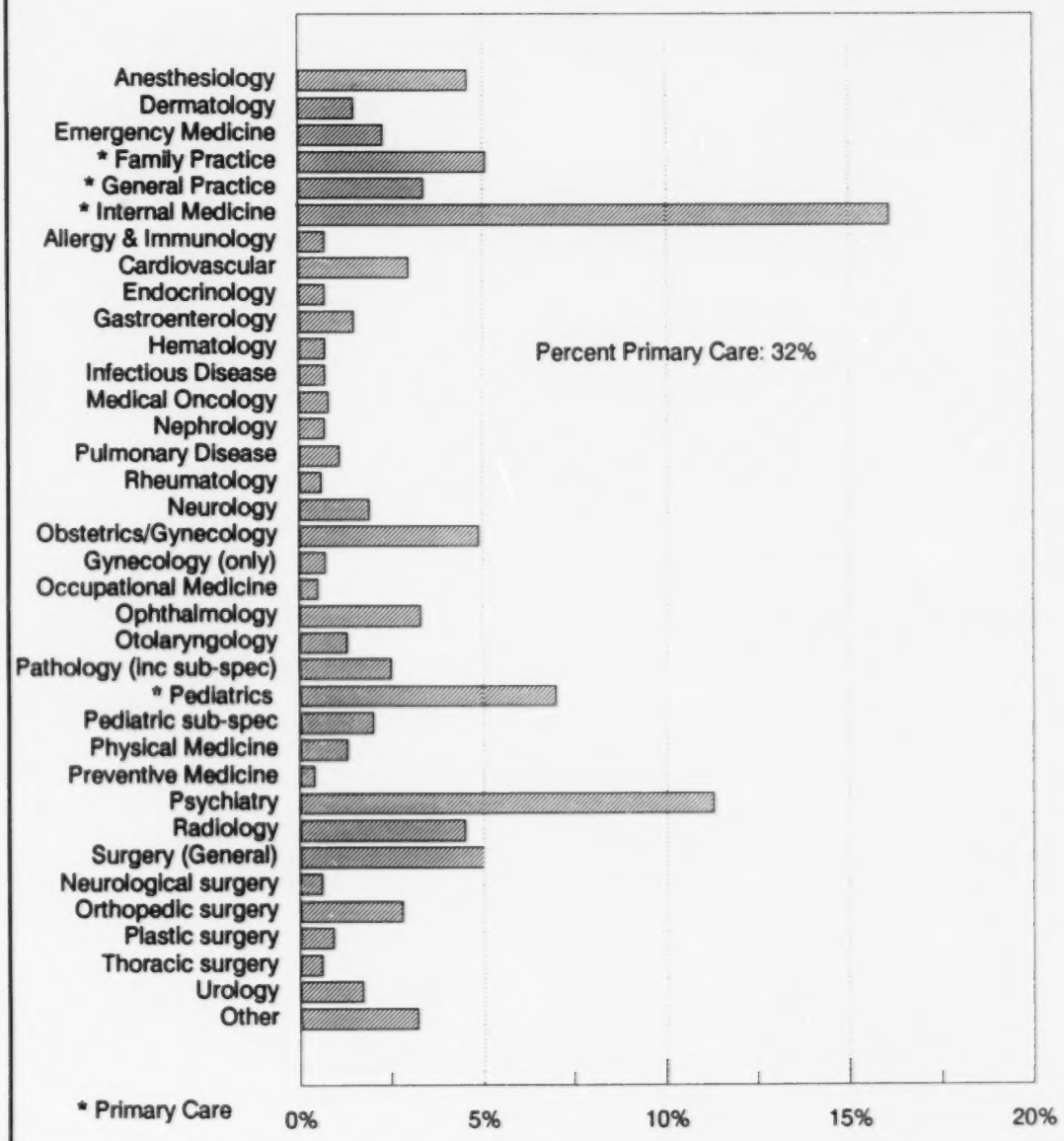
Primary Care Physicians The largest practice specialty of New York State physicians is general internal medicine (Figure 16). Other large specialties are, in descending order, psychiatry, general pediatrics, family practice, general surgery, and obstetrics and gynecology. When primary care medicine is defined as general practice, family practice, and only "general internal medicine" and "general pediatrics" (excluding sub-specialties), 32 percent of active New York State physician's practice specialties fall into one of the primary care fields.

For physicians who did not indicate that their primary specialty was one of the four primary care specialties, almost 5,000 indicated a secondary specialty in one of the primary care areas. For example, 69 percent of all who reported cardiovascular disease as a principal specialty indicated a secondary specialty in primary care, largely in general internal medicine. When secondary specialty is taken into account, the percentage of primary care physicians increases from 32 to 43 percent of all active physicians practicing in New York State (Figure 17).

Physicians were asked to indicate whether or not they provided primary care services, and if so, what percent of their time was spent providing that service. The questionnaire did not define primary care services but instead left that to the individual physician. Table 7 indicates that 85 percent of all active physicians indicated that they spent at lease "some" time providing primary care services. The table also indicates that for those physicians, the average percent of their time spent in providing primary care services was 73 percent. Primary care physicians indicated that they spend 90 percent of their time providing primary care services while nonprimary care physicians reported

Figure 16

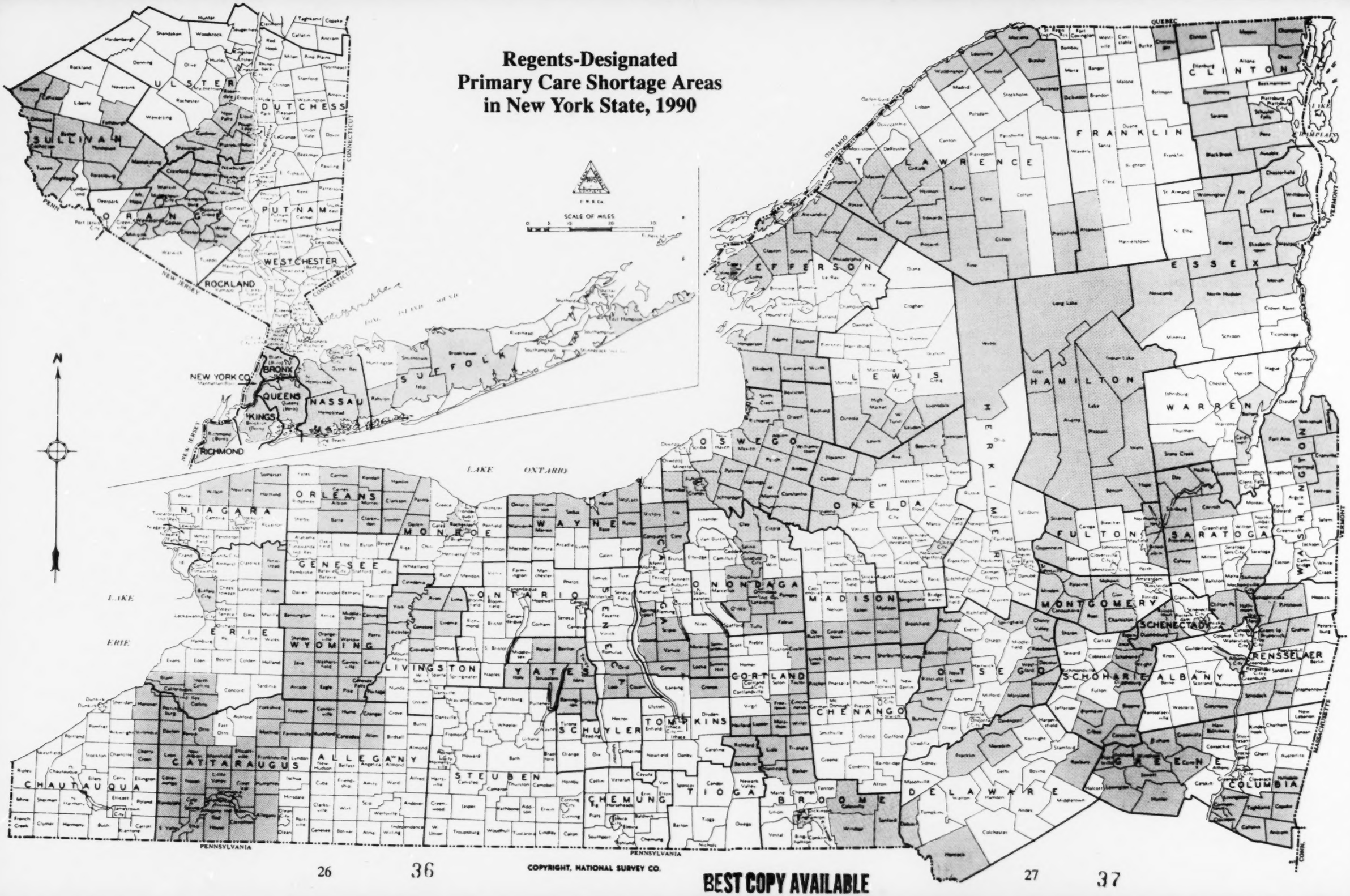
Principal Specialty of NYS Practicing Physicians
1988



Source: NYSED, 1988 Physicians Survey

Bureau of Postsecondary Research and Information Systems

Regents-Designated Primary Care Shortage Areas in New York State, 1990



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that, on average, they spend 57 percent of their time providing primary care services (Figure 18).

As indicated in an earlier section of this report, it is estimated that of the 70,080 physicians who were registered to practice in New York State in September of 1990, approximately 56,690 or 81 percent are actively engaged in practice **within** New York State. That amounted to 323 active physicians per 100,000 population practicing within New York State. Using the same survey based estimation procedures (essentially multiplying survey derived percentages of active, New York located physicians times the number of registered physicians in September of 1990), to estimate the number of primary care physicians yields approximately 17,700 primary care physicians in active practice in New York State in September of 1990. The number of primary care physicians per 100,000 population is estimated to be 99 per 100,000 population; substantially less than the 318 per 100,000 population for all active physicians in the State. Just as substantial variation in the number of active physicians per 100,000 population exists across New York State counties, so too is there substantial variation in the number of primary care physicians per 100,000 population across the State's counties. Map 4 shows that the number of primary care physicians per 100,000 population varies from 26 in Hamilton County (which actually has only one active physician) to a high of 212 in New York County (Manhattan). Figure 19 shows the relationship

Figure 17

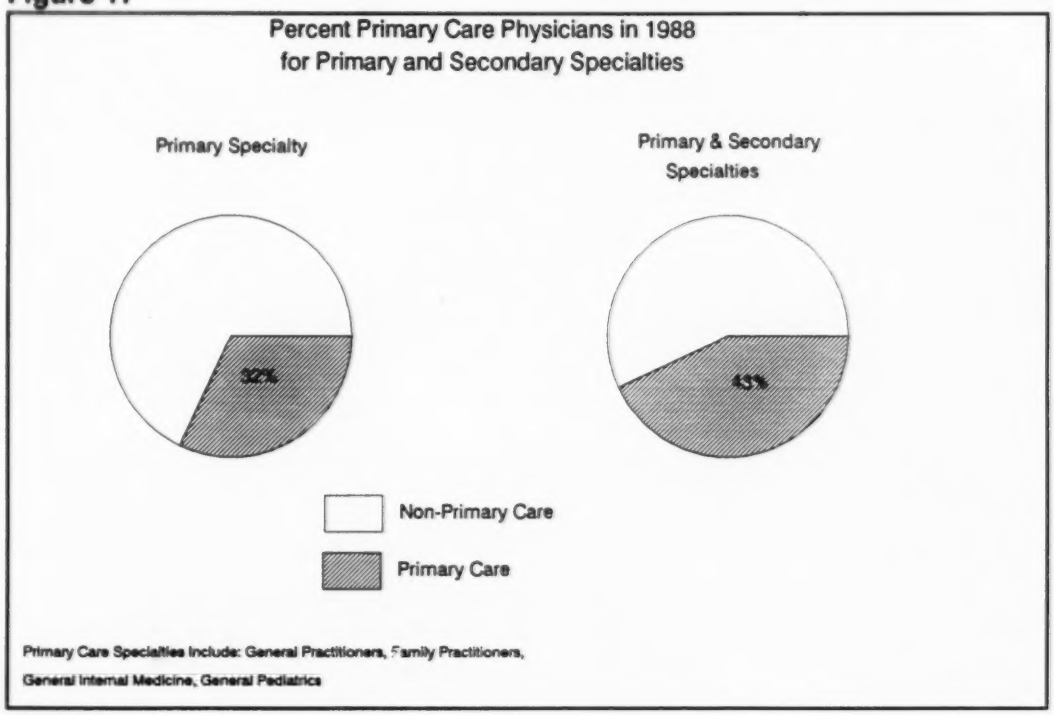

Percent Primary Care Physicians in 1988
for Primary and Secondary Specialties
Primary Specialty
Primary & Secondary Specialties
32%
43%
Non-Primary Care
Primary Care
Primary Care Specialties Include: General Practitioners, Family Practitioners, General Internal Medicine, General Pediatrics

Table 7

Primary Care Services by Specialty					
SPECIALTY	PROVIDE SOME PRIMARY CARE	IF PRIMARY CARE, MEAN % OF TIME IN PC	SPECIALTY	PROVIDE SOME PRIMARY CARE	IF PRIMARY CARE, MEAN % OF TIME IN PC
ANESTHESIOLOGY	61%	80%	OCCUPATIONAL MEDICINE	86%	52%
DERMATOLOGY	71%	74%	OPHTHALMOLOGY	79%	84%
EMERGENCY MEDICINE	98%	90%	OTOLARYNGOLOGY	84%	61%
*FAMILY PRACTICE	99%	94%	PATHOLOGY (GENERAL)	42%	63%
*GENERAL PRACTICE	98%	87%	PATHOLOGY (SUB-SPECIALTY)	31%	44%
*INTERNAL MEDICINE (GENERAL)	97%	83%	*PEDIATRIC (GENERAL)	98%	88%
ALLERGY AND IMMUNOLOGY	77%	47%	PEDIATRIC CARDIOLOGY	75%	49%
CARDIOVASCULAR DISEASE	90%	51%	PEDIATRIC ENDOCRINOLOGY	77%	30%
ENDOCRINOLOGY AND METABOLISM	85%	42%	NEONATAL/PREMATURE	77%	52%
GASTROENTEROLOGY	92%	42%	OTHER PEDIATRIC SUB-SPECIALTY	70%	43%
HEMATOLOGY	87%	41%	PHYSICAL MEDICINE AND REHABILITATION	82%	58%
INFECTIOUS DISEASE	80%	39%			
MEDICAL ONCOLOGY	91%	49%	PREVENTIVE MEDICINE	64%	68%
NEPHROLOGY	93%	48%	PSYCHIATRY	82%	72%
PULMONARY DISEASE	93%	43%	RADIOLOGY	42%	60%
RHEUMATOLOGY	87%	41%	SURGERY (GENERAL)	84%	57%
NEUROLOGY	76%	47%	SURGERY, NEUROLOGICAL	75%	64%
OBSTETRICS AND GYNECOLOGY	98%	76%	SURGERY, ORTHOPEDIC	76%	66%
			SURGERY, PLASTIC	76%	69%
GYNECOLOGY (ONLY)	96%	69%	SURGERY, THORACIC	69%	60%
			UROLOGY	76%	65%
			OTHER	68%	59%
TOTAL ALL SPECIALTIES				**85%**	73%

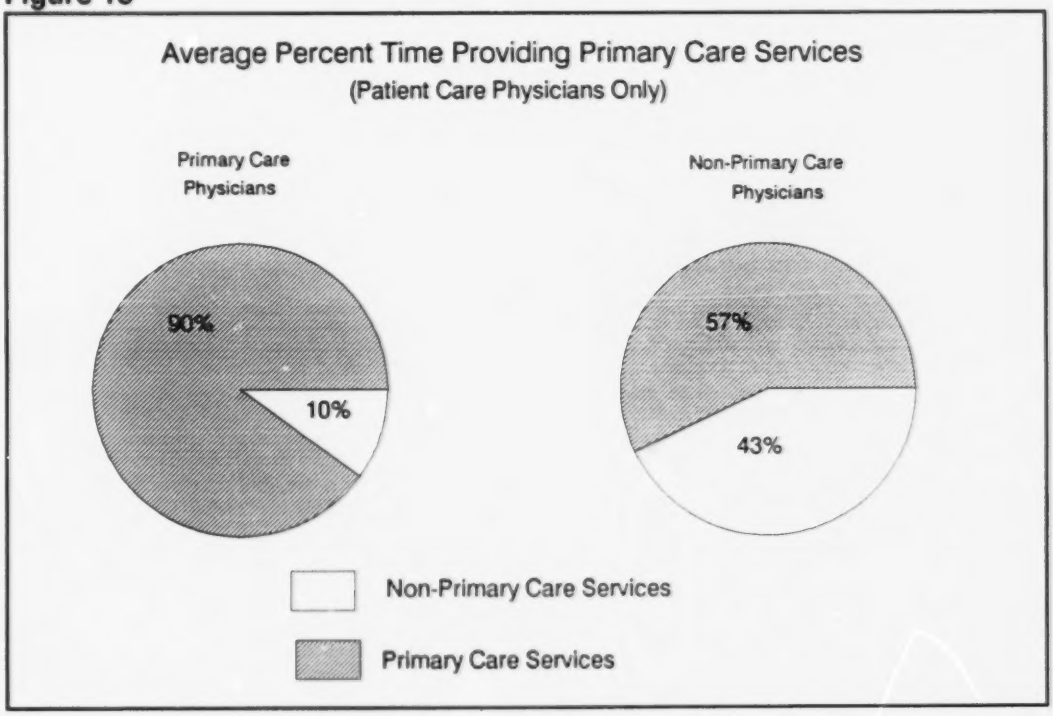
* *PRIMARY CARE*

between urban/rural counties and the concentration of primary care physicians more clearly by grouping New York State's counties into a six-point urban-rural scale based on a scale developed for the State of New York Legislative Commission on Rural Resources (Rural Health Resource Guide: Volume I, August, 1987, p.6.). The figure reveals that urban counties have larger numbers of primary care physicians per population than the State's more rural counties (113 per 100,000 population vs. 59 per 100,000 population).

Figure 20 shows the same relationship between urban and rural counties within New York State and the number of nonprimary care physicians (specialists) per 100,000 population. The graphs reveals, as one would expect, that the relationship between the urban-rural character of counties and specialists per 100,000 population is even stronger than the relationship between county type and the number of primary care physicians. Urban counties have a substantially larger number of specialists per 100,000 population than do rural counties; 258 per 100,000 population for the most urban group of counties compared to 56 per 100,000 for the most rural group of counties.

Changing Practice Specialties? Have the specialties in which New York State physicians practice changed over the past 10 years? Several medical care public policy questions involve the issue of physician practice specialty. Rising malpractice insurance

Figure 18



TOTAL PRIMARY CARE PHYSICIANS PER 100,000 POPULATION

(9/90 ESTIMATES)

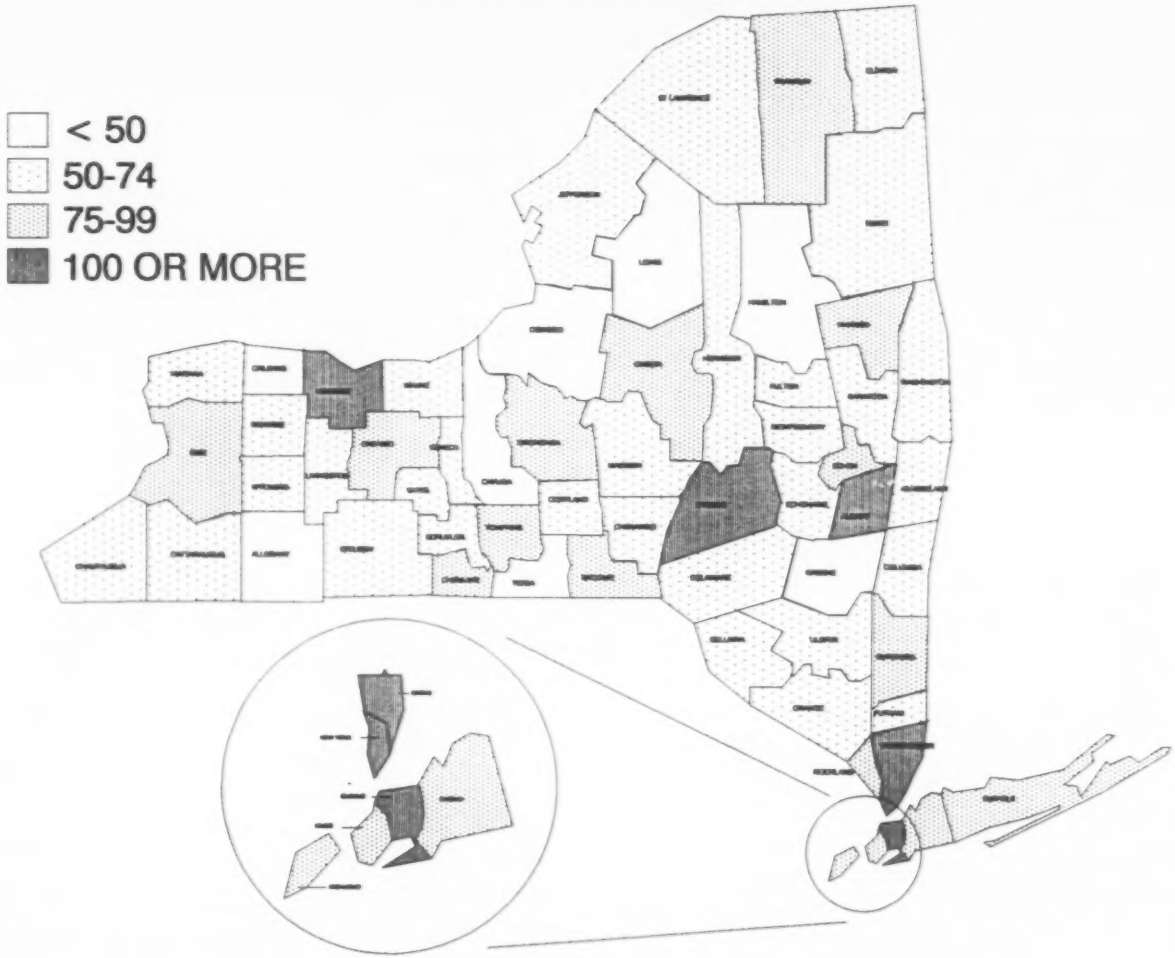


Figure 19

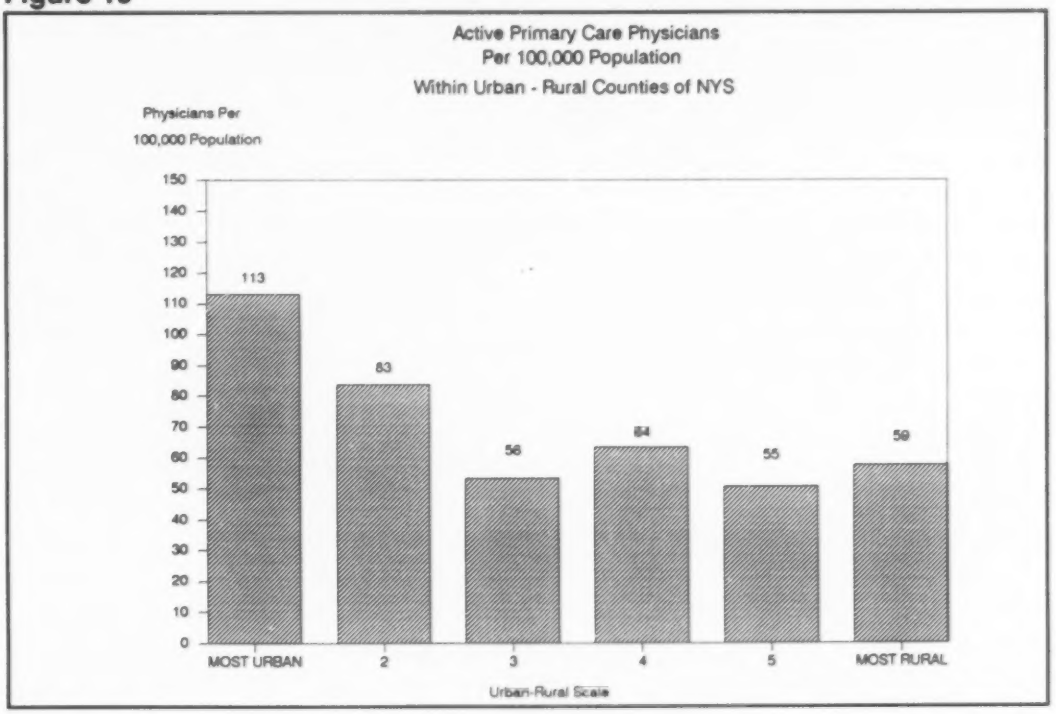
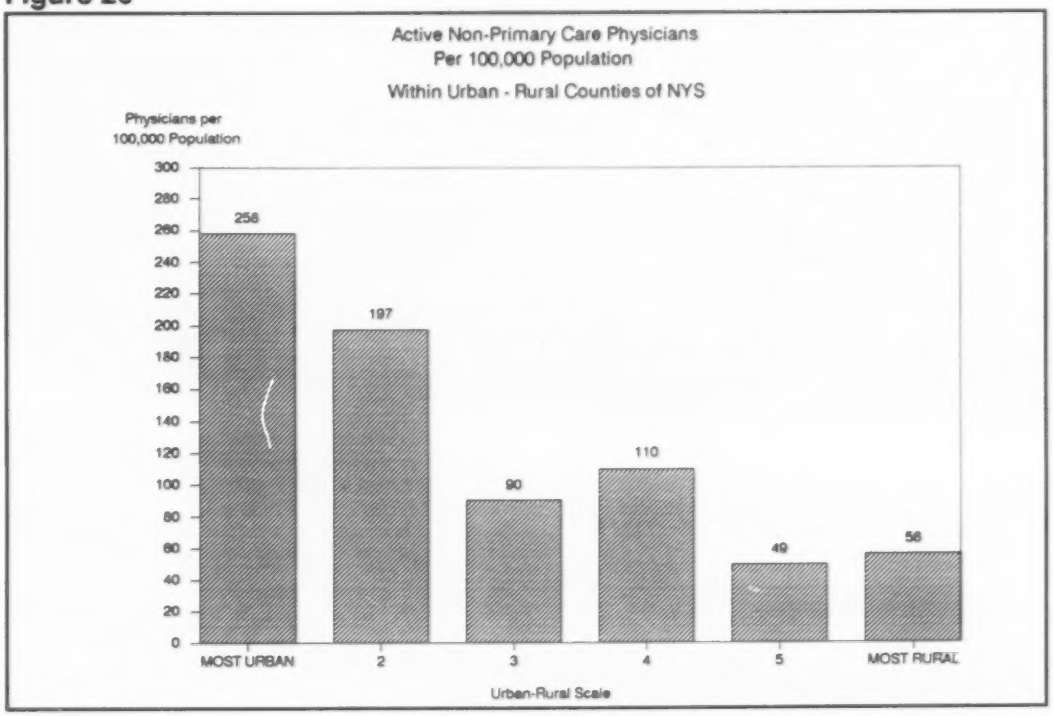


Figure 20



costs over the past several decades have, for example, led to the suggestion that physicians would change their practice specialty as well as the way in which they conduct their practice. Physicians in obstetrical practice in particular have indicated that rising insurance costs might drive them into other specialties. An additional issue related to physician practice specialty concerns primary care physicians. Are there more or fewer primary care physicians than in the past?

Table 8 presents the number of New York State practicing physicians by specialty in 1980 and 1988. The 1980 information comes from the 1980 New York State Education Department physician survey (the Department has conducted such surveys in 1980, 1982, 1985, and 1988) which had a similar response rate to the 1988 survey. The table shows that only two of the medical specialties declined in absolute numbers between 1980 and 1988; surgery and preventive medicine. The specialty with the largest absolute growth was internal medicine with an increase of almost 4,000 physicians or 51 percent. Internal medicine was the specialty with the largest share of physicians in 1980 (23 percent) and increased its share of the total by 1988 (27 percent). The table shows that over 40 percent of the expanded physician supply came from internal medicine. The second largest specialty growth area was in pediatric medicine with a growth of 1,200 physicians, or up 44 percent. Interestingly, the number of physicians reporting an obstetrics/gynecologic specialty increased during this period by 19 percent.

Has there been a growth in the number and percentage of physicians who practice in primary care fields over the last decade? The answer is not clear. Although similar physician surveys were conducted in past years, they did not all use the same list of specialties and subspecialties. Of most importance is the fact that for two of the basic primary care specialties, internal medicine and pediatrics, the 1980 survey did not break out the subspecialties although the 1988 survey did identify the subspecialties within those two primary care fields. In general, only the areas of **general** internal medicine and **general** pediatrics would qualify as primary care fields and not the subspecialties within those specialties. Figure 21 provides a comparison of the 1980 and 1988 specialties grouping the 1988 internal medicine and pediatric subspecialties into total internal medicine and total pediatric as was done in 1980. The figure appears to indicate a modest growth in the number and percent of primary care physicians. The bottom half of Figure 21 divides pediatric and internal medicine into "general" and "subspecialties" and shows these for older and younger physicians. The chart indicates that although there has been growth in these two "primary care" specialties, it is clear that younger physicians are increasingly practicing in those two fields in the "subspecialties". Thus it is not clear whether a larger percentage of physicians are currently practicing in the primary care areas than in the recent past.

Did practicing obstetricians decide to continue practicing in New York State but change their practice specialty because of dramatically increasing medical malpractice costs? It is possible to examine this issue by looking at those physicians who were

Table 8

COMPARISON OF PHYSICIAN PRACTICE SPECIALTY IN 1980 AND 1988
(For Responding Physicians)

	1980	1988	ABSOLUTE CHANGE	PCT SHARE 1980	PCT SHARE 1988	PCT SHARE OF CHANGE	PCT CHANGE '80-'88
ANESTHESIOLOGY	1,309	2,038	729	4%	5%	8%	56%
DERMATOLOGY	499	674	175	2%	2%	2%	35%
EMERGENCY MEDICINE	429	1,018	589	1%	2%	6%	137%
FAMILY/GENERAL PRACTICE	3,495	3,759	264	10%	9%	3%	8%
INTERNAL MEDICINE	7,850	11,847	3997	23%	27%	43%	51%
OBSTETRICS AND GYNECOLOGY	2,102	2,502	400	6%	6%	4%	19%
OPHTHALMOLOGY	1,148	1,448	300	3%	3%	3%	26%
OTOLARYNGOLOGY	493	578	85	2%	1%	1%	17%
PATHOLOGY	991	1,133	142	3%	3%	2%	14%
PEDIATRIC	2,751	3,956	1205	8%	9%	13%	44%
PHYSICAL MEDICINE AND REHABILITATION	327	554	227	1%	1%	2%	69%
PREVENTIVE MEDICINE	339	160	-179	1%	0%	-2%	-53%
PSYCHIATRY	4,611	5,020	409	14%	12%	4%	9%
RADIOLOGY	1,423	2,010	587	4%	5%	6%	41%
SURGERY	4,488	4,375	-113	13%	10%	-1%	-3%
UROLOGY	587	751	164	2%	2%	-2%	28%
OTHER	1,009	1,433	424	3%	3%	5%	42%
Total	**33,851**	**43,256**	**9,405**	**100%**	**100%**		**28%**

Note: Response rate in the two surveys were similar but not 100 percent. Thus, change between 1980 nand 1988 would, to some extent, be a function of response rates by specialty within the two surveys.

respondents in both 1980 and 1988. Figure 22 shows that there were 33,529 physicians who responded to the 1980 physician survey who indicated that they were actively engaged in the practice of medicine in New York State in 1980. Of those physicians, 25,934 (77 percent) renewed their registration to practice in 1988 and of those physicians, 23,092 (89 percent) responded to the 1988 survey.

Figure 21

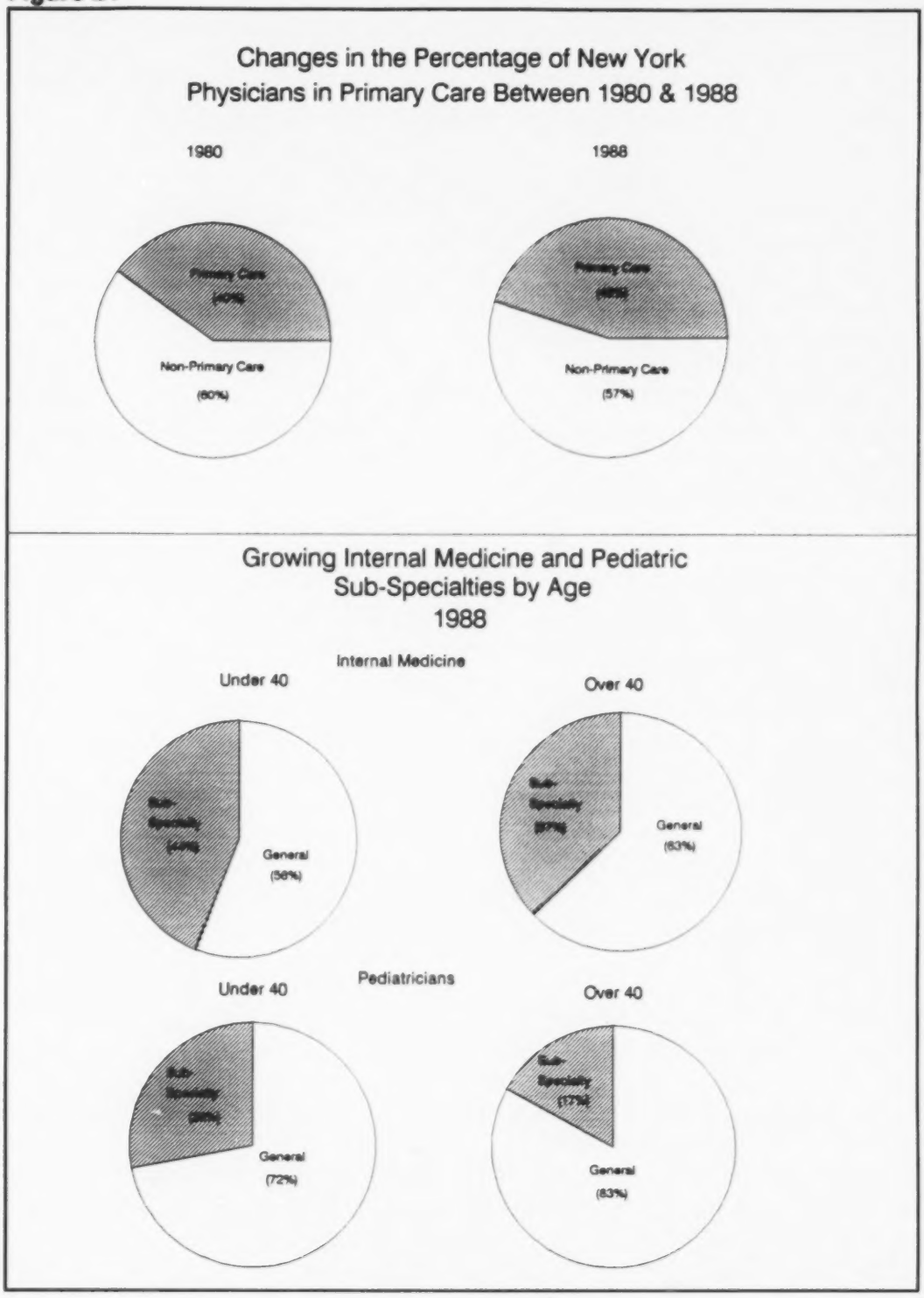

Changes in the Percentage of New York
Physicians in Primary Care Between 1980 & 1988
1980
1988
Primary Care
(40%)
Non-Primary Care
(60%)
Primary Care
(43%)
Non-Primary Care
(57%)
Growing Internal Medicine and Pediatric
Sub-Specialties by Age
1988
Internal Medicine
Under 40
Over 40
General
(56%)
General
(63%)
Pediatricians
Under 40
Over 40
General
(72%)
Sub Specialty
(17%)
General
(83%)

Table 9 shows the 1988 registration and response status of the 1980 physician survey respondents by specialty and shows that there is little variation in the response status by specialty. The lowest response rate was for general practitioners at 82 percent while the overall average was 89 percent. This is no doubt due to the average age of general practitioners which is significantly higher for both registered and unregistered general practitioners than for any other specialty (57 for registered and 67 for unregistered general practitioners.

Did physicians change their practice specialty between 1980 and 1988? For physicians who responded to **both** the 1980 and 1988 surveys, Table 10 shows the percent of physicians who reported the same or different specialty in those two survey years. The table indicates that 88 percent reported the same specialty in both surveys. Interestingly, 95 percent of the obstetrician-gynecologists reported the same specialty in both years or, conversely, only 5 percent indicated that they changed their practice specialty between 1980 and 1988. The specialties with the highest reported specialty change were emergency medicine, general practice, and preventive medicine.

It is possible for physicians to not only change their practice specialty, but, if sufficiently dissatisfied with the conditions under which they practice, they can either

Figure 22

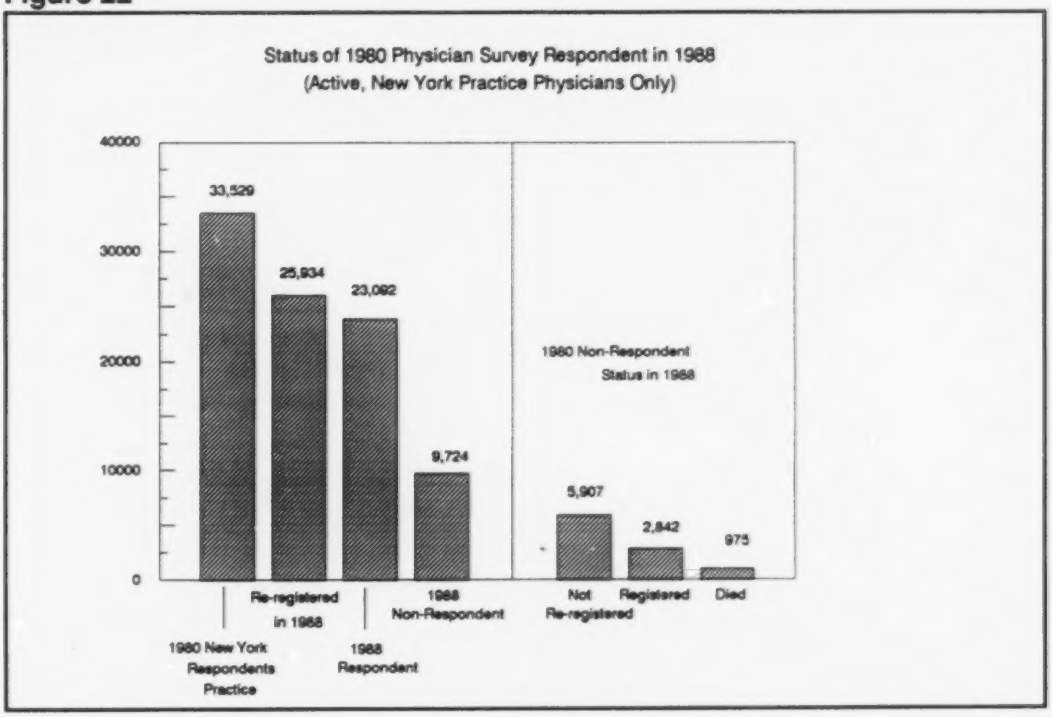


Table 9

1988 REGISTRATION AND RESPONSE STATUS OF 1980 NEW YORK ACTIVE PHYSICIAN RESPONDENTS

Specialty	Response Rates of Re-Registered 1980 Respondents in 1988	Registration Status of 1980 New York State Active Physician Respondents In 1988		
		Died	Not Registered	Registered
ALLERGY-IMMUNOLOGY	93%	6%	17%	76%
ANESTHESIOLOGY	86%	2%	17%	81%
DERMATOLOGY	93%	3%	17%	80%
EMERGENCY MED	89%	4%	24%	72%
FAMILY PRACTICE	88%	5%	23%	72%
GENERAL PRACTICE	82%	10%	35%	55%
INTERNAL MED	90%	2%	18%	79%
OB-GYN	89%	2%	19%	79%
OPHTHALMOLOGY	88%	2%	18%	80%
OTOLARYNGOLOGY	87%	3%	22%	75%
PATHOLOGY	89%	2%	16%	82%
PEDIATRICS	91%	2%	16%	83%
PHYSICAL MED REHAB	91%	3%	21%	76%
PREVENTIVE MED	83%	5%	34%	61%
PSYCHIATRY-NEUROLGY	90%	2%	16%	81%
RADIOLOGY	88%	2%	19%	79%
SURGERY	87%	3%	22%	75%
UROLOGY	91%	2%	20%	78%
OTHER	89%	3%	21%	76%
UNKNOWN	92%	4%	16%	80%
TOTAL	**89%**	**3%**	**20%**	**77%**

discontinue practicing altogether or move their practice out of New York State. Table 9 indicates that 20 percent of the 1980 active physician respondents did not renew their registration to practice in New York State in 1988. The table does not, however, support the contention that obstetricians-gynecologists were any less likely to renew their registration than were other specialties. Table 11 shows that 94 percent of the 1980 physicians whose practice was located in New York State in 1980 are still located in New York State (of those who reregistered in 1988).

Table 10

PRACTICE SPECIALTY CHANGE BETWEEN 1980 AND 1988 FOR PHYSICIANS WHO RESPONDED TO BOTH THE 1980 AND 1988 PHYSICIAN SURVEYS		
	REPORTED SPECIALTY IN 1980 AND 1988	
1980 Specialty	Pct. Unchanged	Pct. Changed
ALLERGY-IMMUNOLOGY	76%	22%
ANESTHESIOLOGY	92%	7%
DERMATOLOGY	96%	2%
EMERGENCY MED	57%	40%
FAMILY PRACTICE	77%	21%
GENERAL PRACTICE	60%	36%
INTERNAL MED	93%	6%
OB-GYN	94%	5%
OPHTHALMOLOGY	97%	3%
OTOLARYNGOLOGY	94%	6%
PATHOLOGY	90%	9%
PEDIATRICS	90%	9%
PHYSICAL MED REHAB	87%	10%
PREVENTIVE MED	33%	35%
PSYCHIATRY-NEUROLOGY	96%	3%
RADIOLOGY	95%	5%
SURGERY	79%	20%
UROLOGY	95%	4%
OTHER	16%	81%
UNKNOWN	0%	0%
TOTAL	**86%**	**12%**

Foreign Medical Graduates and Practice Specialty Do foreign medical school graduates gravitate to some specialties rather than others? The answer as shown in Figure 23 is yes. While overall, foreign medical school graduates comprise 37 percent of practicing New York State physicians they represent over 50 percent in several specialty fields. From a high of 59 percent of physicians practicing in physical medicine to a low of 16 percent in preventive medicine and dermatology. There are four specialties in which foreign trained physicians represent 50 percent or greater of that specialty; general practice, anesthesiology, patyology, and physical medicine.

Board Certification Table 12 shows the percentage of practicing New York State physicians who indicated that they were board certified in their principal specialty and

Table 11

STABILITY OF PHYSICIAN PRACTICE LOCATION	
1980 Specialty	Pct. of 1980 NY Practice Respondents Still Active in NY in 1988*
ALLERGY-IMMUNOLOGY	97%
ANESTHESIOLOGY	94%
DERMATOLOGY	97%
EMERGENCY MED	89%
FAMILY PRACTICE	97%
GENERAL PRACTICE	97%
INTERNAL MED	95%
OB-GYN	95%
OPHTHALMOLOGY	95%
OTOLARYNGOLOGY	97%
PATHOLOGY	91%
PEDIATRICS	95%
PHYSICAL MED REHAB	94%
PREVENTIVE MED	92%
PSYCHIATRY-NEUROLOGY	94%
RADIOLOGY	92%
SURGERY	93%
UROLOGY	94%
OTHER	94%
UNKNOWN	94%
TOTAL	94%
*Of those physicians who re-registered in 1988	

the average years since their last certification/recertification. Some 64 percent are board certified in their principal specialty and it has been, on average, 13 years since their last certification/recertification.

Figure 23

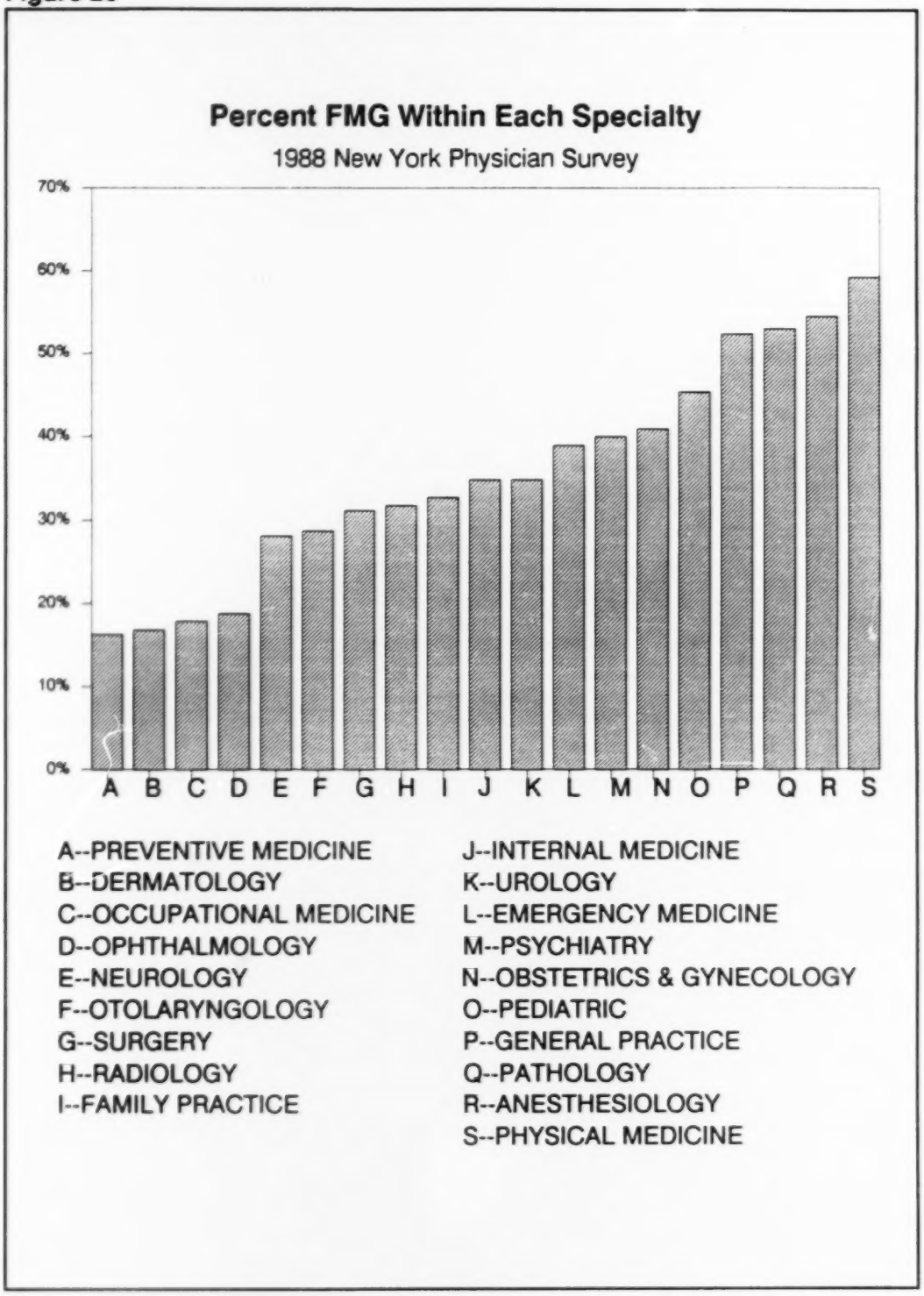

Percent FMG Within Each Specialty
1988 New York Physician Survey
70%
60%
50%
40%
30%
20%
10%
0%
A B C D E F G H I J K L M N O P Q R S
A--PREVENTIVE MEDICINE
B--DERMATOLOGY
C--OCCUPATIONAL MEDICINE
D--OPHTHALMOLOGY
E--NEUROLOGY
F--OTOLARYNGOLOGY
G--SURGERY
H--RADIOLOGY
I--FAMILY PRACTICE
J--INTERNAL MEDICINE
K--UROLOGY
L--EMERGENCY MEDICINE
M--PSYCHIATRY
N--OBSTETRICS & GYNECOLOGY
O--PEDIATRIC
P--GENERAL PRACTICE
Q--PATHOLOGY
R--ANESTHESIOLOGY
S--PHYSICAL MEDICINE

Table 12

NUMBER OF YEARS SINCE LAST BOARD CERTIFICATION IN PRIMARY SPECIALTY FOR BOARD CERTIFIED PHYSICIANS

PRINCIPAL SPECIALTY/LIMITATION	PCT* BOARD CERTIFIED	AVG. YRS SINCE CERT.	YEARS SINCE BOARD CERTIFIED/RECERTIFICATION				
			1 - 5	6 - 10	11 - 15	16 - 20	OVER 20
ANESTHESIOLOGY	45%	13	33%	15%	15%	15%	22%
DERMATOLOGY	71%	15	22%	26%	16%	11%	26%
EMERGENCY MEDICINE	19%	6	60%	29%	6%	2%	3%
FAMILY PRACTICE	59%	6	53%	38%	6%	2%	2%
INTERNAL MEDICINE (GENERAL)	45%	12	27%	26%	22%	13%	13%
ALLERGY AND IMMUNOLOGY	56%	11	27%	19%	26%	21%	7%
CARDIOVASCULAR DISEASE	56%	10	38%	22%	21%	9%	10%
ENDOCRINOLOGY AND METABOLISM	49%	12	30%	21%	29%	12%	8%
GASTROENTEROLOGY	57%	9	37%	29%	19%	9%	7%
HEMATOLOGY	46%	10	44%	18%	17%	17%	5%
INFECTIOUS DISEASE	44%	8	40%	34%	14%	10%	2%
MEDICAL ONCOLOGY	57%	10	30%	28%	30%	8%	4%
NEPHROLOGY	57%	10	27%	34%	21%	14%	3%
PULMONARY DISEASE	52%	8	50%	26%	12%	6%	6%
RHEUMATOLOGY	54%	10	28%	34%	18%	13%	8%
NEUROLOGY	55%	13	23%	26%	24%	12%	16%
OBSTETRICS AND GYNECOLOGY	59%	13	21%	24%	26%	11%	18%
GYNECOLOGY (ONLY)	10%	19	9%	16%	25%	9%	41%
OCCUPATIONAL MEDICINE	17%	16	25%	20%	12%	11%	33%
OPHTHALMOLOGY	68%	16	19%	19%	20%	14%	28%
OTOLARYNGOLOGY	67%	18	16%	20%	18%	15%	32%
PATHOLOGY (GENERAL)	82%	18	8%	11%	25%	20%	36%
PATHOLOGY (SUB-SPECIALTY)	48%	14	15%	26%	21%	17%	21%
PEDIATRIC (GENERAL)	57%	15	22%	21%	16%	12%	29%
PEDIATRIC CARDIOLOGY	57%	13	26%	21%	20%	7%	27%
PEDIATRIC ENDOCRINOLOGY	49%	11	27%	31%	22%	6%	14%
NEONATAL (PREMATURE)	48%	8	46%	24%	26%	1%	3%
OTHER PEDIATRIC SUB-SPECIALTY	24%	11	36%	27%	14%	11%	13%
PHYSICAL MEDICINE AND REHABILITATION	54%	13	25%	24%	17%	13%	21%
PREVENTIVE MEDICINE	36%	14	29%	15%	21%	15%	21%
PSYCHIATRY	55%	16	16%	23%	25%	11%	25%
RADIOLOGY	71%	16	14%	18%	22%	20%	26%
SURGERY (GENERAL)	59%	17	18%	22%	12%	13%	36%
SURGERY (NEUROLOGICAL)	55%	15	18%	21%	16%	17%	28%
SURGERY (ORTHOPEDIC)	62%	16	19%	18%	17%	20%	26%
SURGERY (PLASTIC)	57%	11	26%	33%	20%	12%	10%
SURGERY (THORACIC)	73%	16	28%	16%	8%	12%	36%
UROLOGY	65%	15	14%	20%	29%	15%	23%
OTHER	26%	13	29%	23%	15%	12%	21%
TOTAL	**64%**	**13**	**26%**	**24%**	**19%**	**12%**	**19%**

* CERTIFIED/RECERTIFIED IN PRINCIPAL SPECIALTY

Table 13

PRACTICE CHARACTERISTICS OF NYS PHYSICIANS*
PERCENT SOLO PRACTICE, PERCENT WITH HOSPITAL ADMITTING PRIVILEGES AND AVERAGE HOSPITAL ADMISSIONS PER MONTH BY URBAN/RURAL CLASSIFICATION

URBAN/RURAL RATING	SOLO PRACTICE	HAVE ADMITTING PRIVILEGES	MEDIAN ADMISSIONS PER MONTH
MOST URBAN (1)	43%	82%	4
(2)	33%	86%	7
(3)	47%	84%	10
(4)	44%	86%	10
(5)	56%	84%	10
MOST RURAL (6)	57%	84%	10
TOTAL	42%	83%	5

** Residents and Interns Excluded*

Figure 24

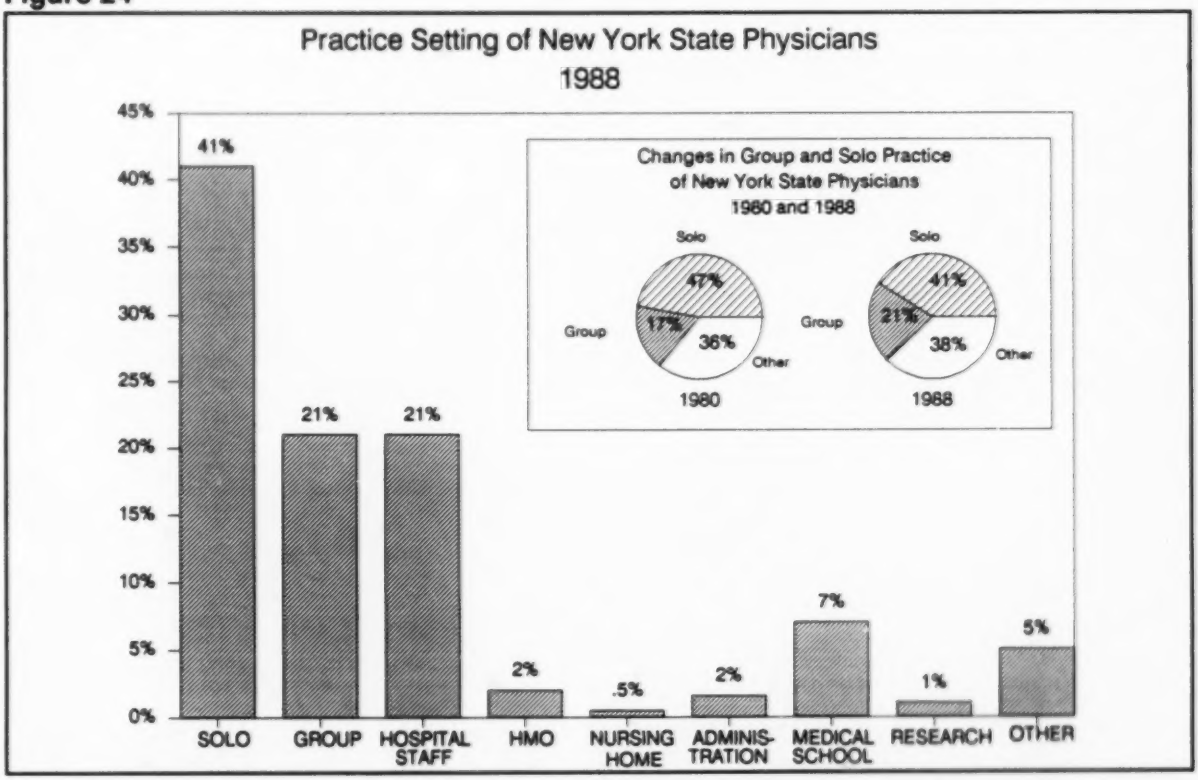
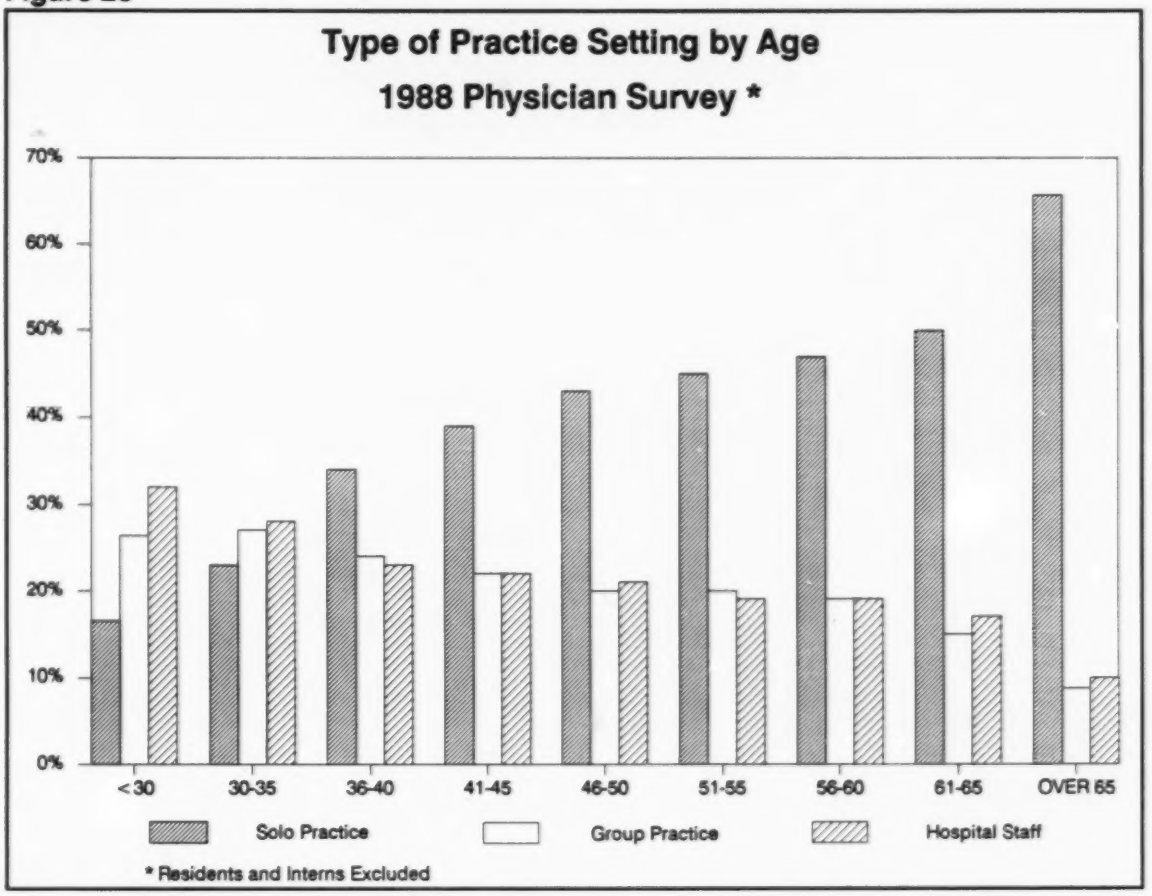


Figure 25

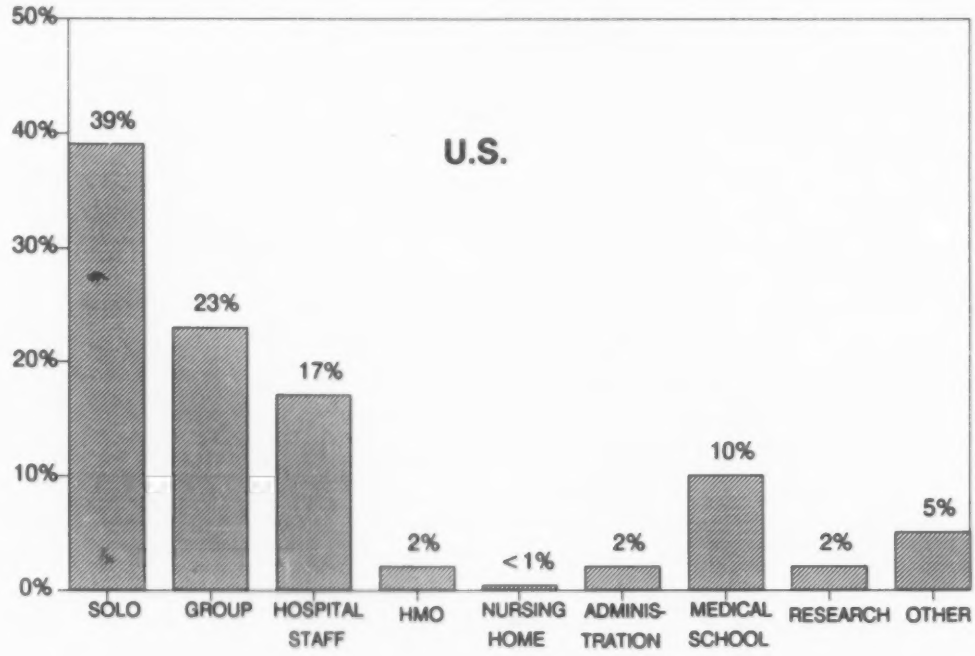


Practice Setting While increasingly physicians are entering into group practice settings, solo practice remains the primary practice setting for most New York State physicians (41 percent). In 1980, 47 percent of the responding physicians reported solo practice while only 17 percent listed group practice as their primary practice setting. In 1988, 41 percent of all physicians reported solo practice and 21 percent reported group practice as their primary practice setting. In 1988 hospitals equaled group practice as the second most frequently listed practice setting (21 percent).

Younger physicians are much less likely to have listed solo practice as their primary practice setting than older physicians. Only 27 percent of physicians under age 40 listed solo practice while 45 percent of physicians age 50 to 59 listed solo practice. Conversely while 27 percent of physicians under 40 listed group practice only 19 percent of those who were 50 to 59 years of age.

Figure 26

Practice Setting of U.S. and Foreign Medical School Graduates



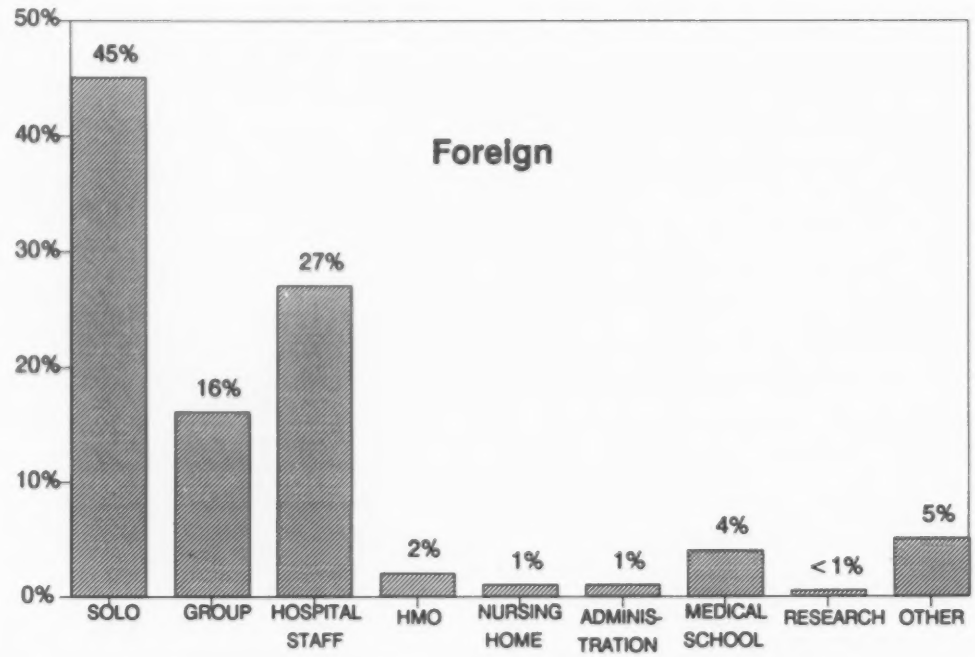


Figure 26 shows the practice setting of U.S. and foreign medical school graduates. The figure reveals that foreign medical school graduates are somewhat more likely to be in solo practice (45 percent) than U.S. medical school graduates and in hospitals (hospital staff, not intern or resident) 27 percent.

Just under 82 percent of all New York State practicing physicians have hospital admitting privileges (interns and residents excluded). Some 85 percent of solo practitioners and 90 percent of group practice physicians have admitting privileges. No significant variation in percent of physicians with admitting privileges exists by type of county (urban - rural) within which the physician practices (Table 13). Table 13 also shows that average number of patients admitted per month for all active, patient care physicians is 5 and varies from a low of 4 for physicians located in urban counties to 10 for those located in the most rural counties.

NEW YORK STATE EDUCATION DEPARTMENT

PHYSICIAN SURVEY 1988

SIDE ONE

NOTICE: This questionnaire is part of your registration application. Complete and return it with the enclosed registration application form and fee to the State Education Department – Division of Professional Licensing Services. Information from questions 3 through 24 will be made available to the New York State Departments of Health, and to other agencies having need for this non-identifiable data for planning and research purposes. Name and license number will be used only by the State Education Department for matching with the professional registration file of the Division of Professional Licensing Services.

INSTRUCTIONS: Where information is requested, please print within the spaces provided. Where multiple responses are offered, indicate your choice of response by placing a check (✓) in the box that corresponds to that response.

This survey is being conducted in accordance with Section 237, subdivision 1, of the New York Education Law. If you have questions, contact, Chief, Bureau of Postsecondary Research and Information Systems, 5B44, CEC, Albany, NY 12230, (518) 474-5091.

1. **NAME** _____ (last (1-15)) _____ (first (16-23)) ___ (m.i. (24))

2. **NYS LICENSE NUMBER** _____ (25-30)

3. **YEAR OF BIRTH** 19 __ (31-32)

4. **CURRENT WORK STATUS IN MEDICINE** (33)
   - ☐ 1. Full-Time (30 hours or more per week)
   - ☐ 2. Part-Time (less than 30 hours per week)
   - ☐ 3. Inactive in Medicine
   - ☐ 4. Retired

Note: If you are inactive in medicine or retired, please use your home address in response to Question 5, PRINCIPLE WORK LOCATION. Disregard questions 6 through 24 and return the questionnaire to the State Education Department.

5. **PRINCIPAL WORK LOCATION** (please do not use a Post Office box number)

_____ (number) _____ (street, avenue, etc. (34-60))

_____ (city (61-75))

__ (state (76-77)) ____ (zip code (78-82)) _____ (county/borough (83-92))

Editing Use Only __ (93-94)

_____ (hospital/facility (if applicable) (95-114))

6. **RACIAL/ETHNIC ORIGIN** (115)
   - ☐ 1. American Indian or Alaskan Native
   - ☐ 2. Asian or Pacific Islander
   - ☐ 3. Black (not Hispanic)
   - ☐ 4. Hispanic (Puerto Rican)
   - ☐ 5. Hispanic (All other)
   - ☐ 6. White, (Not Hispanic)

7. **SEX** (116)
   - ☐ 1. Male
   - ☐ 2. Female

8. **MEDICAL SCHOOL LOCATION** (117)
   - ☐ 1. New York State
   - ☐ 2. Other United States (indicate state) _____
   - ☐ 3. Canada
   - ☐ 4. Other foreign (indicate nation) _____

Editing Use Only __ (118-119)

8a. **MEDICAL SCHOOL NAME** _____

Editing Use Only _____ (120-125)

9. **RESIDENCE ON ENTERING MEDICAL SCHOOL** (126)
   - ☐ 1. New York State
   - ☐ 2. Other United States (indicate state) _____
   - ☐ 3. Canada
   - ☐ 4. Other Foreign (indicate nation) _____

Editing Use Only __ (127-128)

10. **WERE YOU A U.S. CITIZEN WHEN YOU ENTERED MEDICAL SCHOOL?** (129)
    - ☐ 1. Yes
    - ☐ 2. No

If you are a US graduate of a foreign medical school (USFMG), please answer question 11, otherwise to to question 12.

11. **CLERKSHIP PROGRAM LOCATION** (Refers to 3rd and 4th years of medical school or equivalent. Please check all that apply).
    - ☐ New York State (130)
    - ☐ Other United States (indicate state) _____ (131)
    - ☐ Canada (132)
    - ☐ Other foreign (indicate nation) _____ (133)

Editing Use Only ____ (134-137)

12. **ARE YOU A GRADUATE OF A FIFTH PATHWAY PROGRAM?** (138)
    - ☐ 1. Yes
    - ☐ 2. No

13. **YEAR OF MEDICAL SCHOOL GRADUATION** 19 __ (139-140)

14. **WHERE DID YOU TAKE YOUR MOST RECENT RESIDENCY/FELLOWSHIP?** (141)

- ☐ 1. New York State
- ☐ 2. Other United States (indicate state) _____
- ☐ 3. Canada
- ☐ 4. Other foreign (indicate nation) _____

Editing Use Only ⌊_⌋ (142-143)

15. **TYPE OF PRACTICE OR SETTING. CHECK *ONE* FOR (P) PRINCIPAL AND *ONE* FOR (S) SECONDARY** (if applicable) (144-145) (146-147)

(P)	(S)	
☐	☐	01. Solo Practice
☐	☐	02. Group Practice
☐	☐	03. Hospital Staff (Not intern or resident)
☐	☐	04. Hospital Residency (Intern, resident or fellow)
☐	☐	05. HMO
☐	☐	06. Nursing Home
☐	☐	07. Administration
☐	☐	08. Medical School Faculty
☐	☐	09. Research
☐	☐	10. Other Specify _____

Editing Use Only ⌊_⌋ (148-149)

16. **DO YOU UTILIZE ANY OF THE FOLLOWING PHYSICIAN EXTENDERS?** (If *none*, please check response number 1) (150-152)

- ☐ 1. None
- ☐ 2. Physician Assistants
- ☐ 3. Specialist Assistants
- ☐ 4. Other (specify) _____

Editing Use Only ⌊_⌋ (153)

17. **NUMBER OF HOSPITALS AT WHICH YOU HAVE ADMITTING PRIVILEGES** (154)

- ☐ 1. One
- ☐ 2. Two
- ☐ 3. Three
- ☐ 4. Four or more
- ☐ 5. None

18. **DO YOU DELIVER DIRECT PATIENT CARE?** (155)

- ☐ 1. yes
- ☐ 2. no

19. **OF THE TIME YOU SPEND PROVIDING PATIENT CARE, WHAT (estimated) PERCENT IS DEVOTED TO PRIMARY CARE?** ⌊_⌋ (156-158)

20. **ON AVERAGE, HOW MANY PATIENTS DO YOU ADMIT TO HOSPITALS IN A GIVEN MONTH?** ⌊_⌋ (159-161)

21. **SPECIALTY(IES) OR LIMITATION(S) OF PRACTICE AREA IN WHICH YOU SPEND MOST OF YOUR PROFESSIONAL TIME. CHECK ONE FOR (P) PRINCIPAL AND ONE FOR (S) SECONDARY** (if applicable). (162-163) (164-165)

(P)	(S)	
☐	☐	01. Anesthesiology
☐	☐	02. Dermatology
☐	☐	03. Emergency Medicine
☐	☐	04. Family Practice
☐	☐	05. General Practice
☐	☐	06. Internal Medicine (General)
☐	☐	07. Allergy and Immunology
☐	☐	08. Cardiovascular Disease
☐	☐	09. Endocrinology and Metabolism
☐	☐	10. Gastroenterology
☐	☐	11. Hematology
☐	☐	12. Infectious Disease
☐	☐	13. Medical Oncology
☐	☐	14. Nephrology
☐	☐	15. Pulmonary Disease
☐	☐	16. Rheumatology
☐	☐	17. Neurology
☐	☐	18. Obstetrics and Gynecology
☐	☐	19. Gynecology (only)
☐	☐	20. Occupational Medicine
☐	☐	21. Opthalmology
☐	☐	22. Otolaryngology
☐	☐	23. Pathology (General)
☐	☐	24. Pathology (Sub-Specialty)
☐	☐	25. Pediatric (General)
☐	☐	26. Pediatric Cardiology
☐	☐	27. Pediatric Endocrinology
☐	☐	28. Neonatal/Premature
☐	☐	29. Other Pediatric Sub-Specialty
☐	☐	30. Physical Medicine and Rehabilitation
☐	☐	31. Preventive Medicine
☐	☐	32. Psychiatry
☐	☐	33. Radiology
☐	☐	34. Surgery (General)
☐	☐	35. Surgery, Neurological
☐	☐	36. Surgery, Orthopedic
☐	☐	37. Surgery, Plastic
☐	☐	38. Surgery, Thoracic
☐	☐	39. Urology
☐	☐	40. Other (please Specify) _____

Editing Use Only ⌊_⌋ (166-167) ⌊_⌋ (168-169)

22. **SPECIALTY(IES) IN WHICH YOU HAVE HAD TRAINING IN ACCREDITED APPROVED RESIDENCY FELLOWSHIP PROGRAMS? (Use Question 21 specialty codes)**

⌊_⌋ (170-171) ⌊_⌋ (172-173)

23. **AMERICAN BOARD CERTIFIED** (174)

- ☐ 1. Yes (if yes, indicate specialty(ies) using above codes ⌊_⌋ (175-176) ⌊_⌋ (177-178)
- ☐ 2. No

24. **IF BOARD-CERTIFIED, ENTER THE DATE OF YOUR LAST CERTIFICATION/RECERTIFICATION.**

Month ⌊_⌋ (179-180) **Year 19** ⌊_⌋ (181-182)

APPENDIX B

Urban Rural Scale (1 = Most Urban 6 = Most Rural)					
Type 1	**Type 2**	**Type 3**	**Type 4**	**Type 5**	**Type 6**
Bronx	Albany	Cayuga	Cattaraugus	Columbia	Allegany
Kings	Broome	Fulton	Chatauqua	Greene	Chenango
Nassau	Dutchess	Genesee	Chemung	Hamilton	Deleware
New York	Erie	Madison	Clinton	Herkimer	Essex
Queens	Monroe	Montgomery	Cortland	Livingston	Franklin
Richmond	Niagara	Ontario	Jefferson	Orleans	Lewis
Rockland	Oneida	Oswego	Otsego	Putnam	Sullivan
Suffolk	Onondaga	Rensselaer	St. Lawrence	Schoharie	
Westchester	Orange	Saratoga	Steuben	Schuyler	
		Schenectady	Tompkins	Seneca	
		Wayne	Ulster	Tioga	
			Warren	Washington	
				Wyoming	
				Yates	

SOURCE: The New Yor State Legislative Commission on Rural Resources, Rural Health Resource Guide, Volume I, August, 1987, p.6.

APPENDIX C

PRIMARY SPECIALTY OF ACTIVE NYS PHYSICIANS BY RACE
1980 AND 1988

PRIMARY SPECIALTY	TOTAL		AMERICAN INDIAN/ ALASKAN NATIVE		ASIAN OR PACIFIC ISLANDER		BLACK		HISPANIC		WHITE	
	1980	1988	1980	1988	1980	1988	1980	1988	1980	1988	1980	1988
ALLERGY-IMMUNOLOGY	1%	1%	0%	0%	1%	1%	0%	0%	0%	0%	1%	1%
ANESTHESIOLOGY	4%	5%	5%	2%	10%	8%	4%	4%	3%	4%	3%	4%
DERMATOLOGY	1%	1%	0%	1%	0%	0%	1%	1%	2%	1%	2%	2%
EMERGENCY MEDICINE	1%	2%	0%	3%	2%	3%	1%	4%	2%	3%	1%	2%
FAMILY PRACTICE	5%	5%	5%	13%	3%	3%	4%	4%	5%	5%	6%	5%
GENERAL PRACTICE	5%	3%	0%	4%	3%	4%	5%	6%	6%	6%	5%	3%
INTERNAL MEDICINE	22%	26%	25%	28%	22%	26%	24%	26%	18%	22%	22%	26%
OBSTETRICS-GYNECOLOGY	6%	6%	5%	5%	6%	5%	12%	11%	7%	6%	6%	5%
OPHTHALMOLOGY	3%	3%	0%	4%	1%	1%	2%	1%	1%	2%	4%	4%
OTOLARYNGOLOGY	1%	1%	0%	1%	1%	1%	1%	1%	0%	0%	2%	1%
PATHOLOGY	3%	3%	0%	1%	6%	4%	2%	2%	6%	4%	2%	2%
PEDIATRICS	8%	9%	5%	4%	12%	13%	9%	11%	10%	11%	7%	8%
PHYSICAL MEDICINE AND REHABILITATION	1%	1%	10%	1%	2%	2%	1%	2%	1%	2%	1%	1%
PREVENTIVE MEDICINE	1%	0%	0%	0%	0%	0%	1%	0%	2%	0%	1%	0%
PSYCHIATRY-NEUROLOGY	13%	13%	15%	9%	10%	12%	10%	10%	16%	16%	14%	13%
RADIOLOGY	4%	4%	10%	7%	5%	4%	3%	2%	1%	2%	4%	5%
SURGERY	13%	10%	20%	13%	11%	8%	16%	9%	13%	9%	14%	10%
UROLOGY	2%	2%	0%	0%	1%	1%	1%	1%	3%	2%	2%	2%
OTHER	3%	3%	0%	2%	2%	2%	1%	2%	2%	4%	3%	3%
UNKNOWN	0%	2%	0%	3%	0%	1%	0%	3%	0%	1%	0%	2%
TOTALS [1]	30,373	44,248	20	101	4,125	6,996	746	1,638	504	1,494	24,978	34,019
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

[1] Numbers reflect counts of actual respondents to the 1980 and 1988 NYSED surveys rather than estimates shown in the body of this report. Percents may not total 100% due to rounding.

NYSED-Bureau of Postsecondary Research and Information Systems

PRIMARY SPECIALTY OF NYS ACTIVE PHYSICIANS, 1980 AND 1988 DISTRIBUTION BY GENDER

PRIMARY SPECIALTY	TOTAL		MALE		FEMALE	
	1980	1988	1980	1988	1980	1988
ALLERGY-IMMUNOLOGY	1%	1%	1%	1%	1%	1%
ANESTHESIOLOGY	4%	5%	3%	4%	6%	5%
DERMATOLOGY	1%	2%	1%	1%	1%	2%
EMERGENCY MEDICINE	1%	2%	1%	2%	1%	2%
FAMILY PRACTICE	5%	5%	6%	5%	4%	4%
GENERAL PRACTICE	5%	3%	5%	3%	4%	3%
INTERNAL MEDICINE	22%	26%	23%	27%	17%	21%
OBSTETRICS-GYNECOLOGY	6%	6%	6%	5%	6%	7%
OPHTHALMOLOGY	3%	3%	4%	4%	2%	2%
OTOLARYNGOLOGY	1%	1%	2%	2%	0%	0%
PATHOLOGY	3%	3%	3%	2%	5%	4%
PEDIATRICS	8%	9%	6%	6%	19%	18%
PHYSICAL MEDICINE AND REHABILITATION	1%	1%	1%	1%	2%	2%
PREVENTIVE MEDICINE	1%	0%	1%	0%	1%	1%
PSYCHIATRY-NEUROLOGY	14%	13%	13%	12%	19%	17%
RADIOLOGY	4%	4%	4%	5%	4%	4%
SURGERY	13%	10%	15%	12%	4%	2%
UROLOGY	2%	2%	2%	2%	0%	0%
OTHER	3%	3%	3%	3%	3%	3%
UNKNOWN	0%	2%	0%	2%	0%	2%
TOTALS[1]	32,514	44,598	27,827	35,644	4,687	8,954
	100%	100%	100%	100%	100%	100%

[1] Numbers reflect counts of actual respondents to the 1980 and 1988 NYSED surveys rather than estimates shown in the body of this report. Percents may not total 100% due to rounding.

NYSED-Bureau of Postsecondary Research and Information Systems

PRIMARY PRACTICE LOCATION OF ACTIVE NYS PHYSICIANS BY RACE - 1980 AND 1988

	TOTAL			AMERICAN INDIAN/ ALASKAN NATIVE			ASIAN OR PACIFIC ISLANDER			BLACK			HISPANIC			WHITE		
COUNTY	1980	1988	% Change 1980-88	1980	1988	% Change 1980-88	1980	1988	% Change 1980-88	1980	1988	% Change 1980-88	1980	1988	% Change 1980-88	1980	1988	% Change 1980-88
ALBANY	690	1,010	32%	2	1	-100%	79	106	25%	7	13	46%	4	19	79%	598	871	31%
ALLEGANY	27	28	4%				7	7	0%							20	21	5%
BROOME	300	392	23%				51	88	42%	2	7	71%	5	10	50%	242	287	16%
CATTARAUGUS	82	90	9%		1	100%	15	20	25%	2	1	-100%	2	4	50%	63	64	2%
CAYUGA	66	78	15%				4	8	50%				1	1	0%	61	69	12%
CHAUTAUQUA	130	152	14%				18	31	42%		2	100%	1	5	80%	111	114	3%
CHEMUNG	118	170	31%		1	100%	18	27	33%	1				3	100%	99	139	29%
CHENANGO	35	48	27%				2	10	80%							33	38	13%
CLINTON	74	104	29%				6	11	45%	2	1	-100%	1	3	67%	65	89	27%
COLUMBIA	40	66	39%				1	6	83%		2	100%				39	58	33%
CORTLAND	37	44	16%				10	7	-43%				1	2	50%	26	35	26%
DELAWARE	31	39	21%				4	14	71%	1	1	0%				26	24	-8%
DUTCHESS	322	494	35%		2	100%	82	163	50%	4	14	71%	4	12	67%	232	303	23%
ERIE	1,516	2,056	26%	1	5	80%	238	364	35%	22	40	45%	15	50	70%	1,240	1,597	22%
ESSEX	22	31	29%				1									21	31	32%
FRANKLIN	42	65	35%		2	100%	3	5	40%	1	1	0%				38	57	33%
FULTON	43	51	16%				5	12	58%					1	100%	38	38	0%
GENESEE	47	62	24%				12	21	43%					1	100%	35	40	13%
GREENE	13	23	43%				3	3	0%							10	20	50%
HAMILTON	1	1	0%													1	1	0%
HERKIMER	30	42	29%				3	8	63%		1	100%	1	4	75%	26	29	10%
JEFFERSON	68	121	44%				12	19	37%					2	100%	56	100	44%
LEWIS	9	14	36%				2	4	50%							7	10	30%
LIVINGSTON	28	39	28%				9	14	36%							19	25	24%
MADISON	32	53	40%				4	6	33%	1	2	50%		1	100%	27	44	39%
MONROE	1,312	1,814	28%	1	5	80%	104	168	38%	19	30	37%	12	25	52%	1,176	1,586	26%
MONTGOMERY	38	64	41%				12	19	37%				1	1	0%	25	44	43%
NASSAU	2,376	2,554	7%	2	8	75%	205	295	31%	32	32	0%	22	52	58%	2,115	2,167	2%
NEW YORK	8,104	11,331	28%	5	27	81%	684	1,082	37%	252	477	47%	160	446	64%	7,003	9,299	25%
BRONX	1,952	2,916	33%	2	3	33%	362	562	36%	54	170	68%	67	200	67%	1,467	1,981	26%
KINGS	3,282	4,566	28%	1	7	86%	772	1,098	30%	169	450	62%	79	199	60%	2,261	2,812	20%
QUEENS	2,155	4,424	51%		8	100%	369	862	57%	73	192	62%	55	194	72%	1,658	3,168	48%
RICHMOND	419	723	42%	1	3	67%	132	212	38%	7	9	22%	3	22	86%	276	477	42%
NIAGARA	180	220	18%		1	100%	36	67	46%	2	4	50%		7	100%	142	141	-1%
ONEIDA	286	386	26%		4	100%	35	71	51%	5	4	-25%	3	10	70%	243	297	18%
ONONDAGA	798	1,113	28%		2	100%	60	99	39%	9	11	18%	6	17	65%	723	984	27%
ONTARIO	109	145	25%		1	100%	11	14	21%	2	2	0%				96	128	25%
ORANGE	292	453	36%		2	100%	77	138	44%	3	3	0%	5	13	62%	207	297	30%
ORLEANS	23	28	18%				4	6	33%					2	100%	19	20	5%
OSWEGO	74	80	8%	1	1	0%	12	16	25%	1	2	50%		1	100%	60	60	0%
OTSEGO	95	157	39%				5	8	38%		1	100%	1			89	148	40%
PUTNAM	65	110	41%				10	24	58%				1	4	75%	54	82	34%
RENSSELAER	118	180	34%				17	36	53%	1	3	67%		5	100%	100	136	26%
ROCKLAND	429	600	28%				67	107	37%	6	13	54%	7	13	46%	349	467	25%
ST LAWRENCE	83	119	30%		1	100%	10	21	52%	4	8	50%	1	3	67%	68	86	21%
SARATOGA	67	121	45%				8	16	50%	3	4	25%		1	100%	56	100	44%
SCHENECTADY	245	331	26%		1	100%	36	52	31%	4	6	33%	1	8	88%	204	264	23%
SCHOHARIE	18	23	22%					1	100%		1	100%		1	100%	18	20	10%
SCHUYLER	8	21	62%				2	6	67%		1	100%				6	14	57%
SENECA	27	23	-17%				5	11	55%				1			21	12	-75%
STEUBEN	89	109	18%				23	34	32%	1	1	0%				65	74	12%
SUFFOLK	1,458	2,346	38%	1	4	75%	253	454	44%	11	33	67%	22	66	67%	1,171	1,789	35%
SULLIVAN	52	68	24%				7	15	53%					1	100%	45	52	13%
TIOGA	17	28	39%				3	6	50%							14	22	36%
TOMPKINS	91	134	32%				4	8	50%	2	2	0%	2	2	0%	83	122	32%
ULSTER	134	197	32%				23	41	44%		3	100%		3	100%	111	150	26%
WARREN	79	119	34%				6	13	54%					1	100%	73	105	30%
WASHINGTON	31	40	23%				2	1	-100%				1			28	39	28%
WAYNE	50	69	28%		1	100%	10	19	47%	1	3	67%	1			38	46	17%
WESTCHESTER	1,774	2,599	32%	2	9	78%	134	300	55%	38	59	36%	16	55	71%	1,584	2,176	27%
WYOMING	25	34	26%				7	10	30%		2	100%		1	100%	18	21	14%
YATES	13	14	7%													13	14	7%
UNKNOWN NYS	202	716	72%	1	1	0%	29	150	81%	4	27	85%	2	23	91%	166	515	68%
TOTAL[1]	30,373	44,248	31%	20	101	80%	4,125	6,996	41%	746	1,638	54%	504	1,494	66%	24,978	34,019	27%

ACTIVE NYS PHYSICIANS PER 1988 NYSED SURVEY
PRIMARY PRACTICE SETTING BY GENDER

PRIMARY PRACTICE-1988	TOTAL		MALE		FEMALE	
	NO.	PCT.	NO.	PCT.	NO.	PCT.
SOLO PRACTICE	16,083	36.6%	13,974	39.7%	2,109	24.0%
GROUP PRACTICE	7,971	18.1%	6,921	19.7%	1,050	12.0%
HOSPITAL STAFF (NOT INTERN OR RESIDENT)	8,075	18.4%	5,632	16.0%	2,443	27.8%
HOSPITAL RESIDENCY (INTERN,RESIDENT OR FELLOW)	5,032	11.4%	3,622	10.3%	1,410	16.1%
HMO	771	1.8%	513	1.5%	258	2.9%
NURSING HOME	194	.4%	136	.4%	58	.7%
ADMINISTRATION	613	1.4%	488	1.4%	125	1.4%
MEDICAL SCHOOL FACULTY	2,850	6.5%	2,290	6.5%	560	6.4%
RESEARCH	440	1.0%	339	1.0%	101	1.1%
OTHER	1,919	4.4%	1,249	3.6%	670	7.6%
TOTAL [1]	43,948	100%	35,164	100%	8,784	100%

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